

**Attitudes Toward International Trade and
Immigration: An Experimental Analysis**

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TABLE OF CONTENTS

Acknowledgements	v
List of Tables	vi
List of Figures.....	vii
Abstract.....	viii
1. Introduction.....	1
1.1. Trade: An Introduction	1
1.2 The Economist Versus the Layperson	1
1.3. Economic Models of Self-Interest	3
1.3.1. Factor Endowments Model	4
1.3.2. Specific Factors Model	4
1.3.3. Economic Models as Predictors of Lay Attitudes	4
1.4. Psychological Theories	7
1.4.1. Utility	9
1.4.2. Decision-Making Biases	10
1.4.3. Altruism and Parochialism.....	11
1.4.4. Fairness in Trade and Bargaining.....	13
1.4.5. Fixed-Pie Beliefs.....	14
1.5. Goods Versus People Through Integrated Threat Theory	14
1.6. Capital Flow: Foreign Investment	18
1.7. Summary of Rationale	18
2. Experiment One	19
2.1. Introduction.....	19
2.1.1. Design	19
2.1.2. Hypotheses	19
2.2. Method	20
2.2.1. Respondents	20

2.2.2. Questionnaire	21
2.2.2.1. Independent Variable One: Type	21
2.2.2.2. Independent Variable Two: Availability	22
2.2.2.3. Independent Variable Three: Quality	22
2.2.2.4. Dependent Variable: Restriction	24
2.3. Results.....	25
2.3.1. Repeated Measures ANOVA	25
2.3.2. Split-Plot Analyses.....	26
2.3.2.1. Gender	26
2.3.2.2. Sample.....	26
2.3.3. Independent Sample Analyses	28
2.4. Discussion	28
2.4.1. Summary	28
2.4.2. Workers, Goods, and Availability.....	30
2.4.3. Gender	31
3. Experiment Two.....	32
3.1. Introduction.....	32
3.1.1. Design	32
3.1.2. Hypotheses	32
3.2. Method	33
3.2.1. Respondents	33
3.2.2. Questionnaire	34
3.2.2.1. Independent Variable One: Type	35
3.2.2.2. Independent Variable Two: Availability	35
3.2.2.3. Independent Variable Three: Reciprocity	35
3.2.2.4. Independent Variable Four: Wage	36
3.2.2.5. Dependent Variable One: Restriction.....	36
3.2.2.6. Dependent Variable Two: Benefit to Own Country	36
3.2.2.7. Dependent Variable Three: Benefit to Other Country.....	37

3.3. Results.....	38
3.3.1. Repeated Measures ANOVA	38
3.3.1.1. Restriction	38
3.3.1.2. Benefit to Own Country	39
3.3.1.3. Benefit to Other Country	40
3.3.1.4. Correlations Between Measures	41
3.3.2. Split-Plot Analyses.....	42
3.3.2.1. Studentship.....	42
3.3.2.2. Gender.....	43
3.3.2.3. Sample.....	44
3.3.2.3.1. Restriction	44
3.3.2.3.2. Benefit to Own Country	46
3.3.2.3.3. Benefit to Other Country	47
3.3.3. Independent Sample Analyses	48
3.4. Discussion	50
3.4.1. Summary	50
3.4.2. Sample Differences and Biases	52
3.4.3. Students Prefer Immigrants From Low-Wage Countries	54
3.4.4. US Students.....	55
3.4.5. Females Reject Goods From Low-Wage Countries	55
4. General Discussion.....	57
4.1. Main Effects.....	57
4.2. Type: Capital Investment and Imported Goods	57
4.3. Type: Goods Versus Workers	58
4.3.1. High- Versus Low-Wage Countries	59
4.3.2. Reciprocation	60
4.3.3. Availability.....	61
4.4. Gender Differences	62
4.5. Limitations	63

4.6. Applications and Future Research	64
4.7. Conclusion	66
References	67
Appendix A: Experiment One Questionnaire	76
Appendix B: Independent Sample Analyses - NZ Sample, Experiment One	82
Appendix C: Independent Sample Analyses - US Sample, Experiment One	85
Appendix D: Experiment Two Questionnaire	88
Appendix E: Independent Sample Analyses - NZ Sample, Experiment Two.....	105
Appendix F: Independent Sample Analyses - US Sample, Experiment Two	110

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List of Tables

Table 1. Pearson correlations between trade types for all respondents, averaged over each respondent's four responses for each type	26
Table 2. Mean restriction scores for NZ and US samples.....	28
Table 3. Overall mean benefit to other country scores for trade with high- and low-wage countries in goods and migrant workers	41
Table 4. Pearson correlations between the three dependent measures, averaged over all 16 of each respondent's responses on that scale	42
Table 5. Male and female mean restriction ratings for imported goods and immigrant workers with high- and low-wage countries.....	44
Table 6. Mean restriction scores for NZ and US samples for three significant sample interactions.....	45
Table 7. Mean perceived benefit to other country for NZ and US samples when importing goods from high- and low-wage countries.....	48
Table 8. Mean NZ sample ratings for each independent variable on each dependent measure	49
Table 9. Mean US sample ratings for each independent variable on each dependent measure	50

List of Figures

Figure 1. Mean restriction scores by trade type and availability for NZ and US samples

(Note: Mean taken for trade in goods and investment).....27

Figure 2. Mean restriction scores for NZ and US respondents for importing goods and

immigrant workers from a low-wage country46

Abstract

Public opinion on trade has long differed from that of the economist. This discrepancy has provoked many theories. This thesis sought to bring together a wide variety of research into trade attitudes, and build on previous explanations for these attitudes. Two experiments each used a sample from New Zealand and the United States. The experiments presented scenarios to laypeople that proposed either imported goods, immigrant workers, or foreign investment entering their country. Respondents indicated their willingness restrict or allow each scenario, for which the results are reported. Respondents preferred trade when the proposed good or worker was not produced or available locally, of high quality, reciprocated by the other country, and came from a high-wage country. Overall, respondents did not greatly distinguish between imported goods and foreign investment. There were also strong similarities in attitudes toward imported goods and immigrant workers. However, respondents treated imports and immigrants significantly differently when certain circumstances were present. The results show that laypeople consider a wide variety of factors when forming trade and immigration attitudes, such as perceived fairness, the welfare of others, and local interests. Suggestions are made for policy makers and future researchers.

1. Introduction

1.1. Trade: An Introduction

Humans are social animals. We depend upon one another for survival. It is not a mutual reliance that has been learned over time, but rather a reliance upon which our species is built. It is an evolutionary phenomenon, and a contingency of our existence (see Horan, Bulte, & Shogren, 2005; Ridley, 1997). Trade is not only a large part of this, but could be defined as the totality of our social interaction. When we consider trade, we tend to think of overtly economic trade in goods and services (usually exchanged for money). However, something as banal as a casual conversation with a friend could be described as a trade in thought, energy, and time. As pervasive and inconsistent as trade is—from the most rudimentary human interaction to the multi-billion dollar multilateral trade deals typical of the 21st century—it becomes difficult to consider as an entire construct. Popular insights into trade have largely come through an economic framework. Trade is seldom viewed on the level of the individual, but rather at a market level: dealing with trends in markets rather than the individual within a market. The domain of international trade has not been extensively studied by psychologists, despite survey data suggesting that laypeople have an attitude toward trade that is more hostile than that of economist. The present research will provide a review of existing insights into lay attitudes toward international trade, and seek to provide further empirical bases for an explanation of this relative lay aversion to trade.

1.2. The Economist Versus the Layperson

In general, economists have tended to strongly support free trade. A survey of economists from the United States (US) and four European countries reported in Frey, Pommerehne, Schneider, and Gilbert (1984) found that 57% of international economists

“generally agreed” that “tariffs and import quotas reduce economic welfare,” with only 10% “generally disagreeing.” When just the US economists were taken, general agreement rose to 79%, with only 3% generally disagreeing. Using the same statement as Frey et al. (1984), Alston, Kearl, and Vaughan (1992) reported that, among a large sample of US economists, over 71% “generally agreed,” 21% “agreed with provisos,” and only around 7% “generally disagreed.” In a survey of members of the American Economic Association reported in Whaples (2009), 83% of respondents agreed (including 37% that “strongly agreed”) that the US should eliminate all existing tariffs and other trade barriers, while only 10% disagreed. Taken together, these results suggest that the economist’s view of trade is both favourable and indifferent to changing circumstances over time. Economists substantiate their views by citing improved access to foreign markets and an increased availability of imported goods as ways in which free trade is beneficial (for a fuller analysis of trade, see Irwin, 2015).

In contrast to the strong support from economists, free trade has been met with uncertainty, and, often, opposition, from the general public. Research has shown that people tend to support, or at least recognise some benefits of, free trade in the abstract. One poll taken showed that 70% Americans believe trade is good for the economy (Kull, 2000). A Pew Research Center poll taken in 2014(a) reported that 81% of people across 44 countries believed that “trade is good.” However, while people favour and recognise the benefits of trade, they often oppose it in the particular. When people are asked about specific trade deals, support generally wanes. For example, 68% of Americans believe that growing trade and business ties with other countries is a good thing, but only 52% believe that free trade agreements between the US and other countries have been a good thing (Pew Research Center, 2014a, 2017a). As reported in Mayda and Rodrik (2005), data from large cross-national samples, the International Social Survey Programme (ISSP) and World Values Survey (WVS), indicate that approximately 60% of people internationally support limiting

imports of foreign goods. Recently in the US, the president has raised concerns about pre-existing and prospective trade deals—the North American Free Trade Agreement (NAFTA) and the Trans-Pacific Partnership Agreement (TPPA), respectively—while here in New Zealand (NZ), the proposed TPPA has been the subject to scrutiny. One survey reported in Bannan (2017) found that 19% of NZ respondents supported the TPPA, while 58% were against it, and 23% were neutral. The respondents with neutral views on the TPPA also reported having the least knowledge about it. Overall, general public opinions on free trade tend to be mixed, with respondents often “unsure” when surveyed about specific trade issues, likely due to a lack of knowledge or interest, as well as a general tendency to underestimate economic benefits (Caplan, 2011). For example, one Pew Research Center poll (2014a) reported that only 26% of people believed that trade would lower prices, meaning that 74% of people did not accept the premise of economist’s principal argument for free trade.

The discrepancy between the attitudes of the layperson and economist has provoked a few theories. The most obvious explanation for an attitude toward trade must be the perceived impact trade would have on the individual holding the belief. Despite economists suggesting that free trade is beneficial for society, there are groups that may be adversely impacted by specific trade (e.g. local producers being forced to compete with imports). However, those negatively affected by trade are few within a greater society that ultimately benefits through greater access to cheaper goods. As suggested by the research cited, people generally believe that trade is good for the economy, yet do not understand how trade benefits the economy, and are often opposed to multinational deals that broker trade and subsequently provide the benefit to their national economy.

1.3. Economic Models of Self-Interest

Mayda and Rodrik (2005) sought to explain lay attitudes toward trade through two models: the factor endowments model and the specific factors model.

1.3.1 Factor Endowments Model

Firstly, the factor endowments model posits that trade benefits individuals who possess factors with which the economy is well-endowed, and has a negative impact on those who do not possess such factors. Thus, countries with skilled labour forces such as NZ and the US should find pro-trade attitudes among high-skilled workers, and more protectionist attitudes among low-skilled workers.

1.3.2. Specific Factors Model

Secondly, the specific factors model predicts that an individual's employment sector will influence their attitudes toward trade. People employed in sectors that rely on imports should be more supportive of free trade than those who work in industries that face competition from imports. That is, individuals that work in sectors where their country has a comparative advantage should be pro-trade; individuals who work in sectors with a comparative disadvantage should be anti-trade.

1.3.3. Economic Models as Predictors of Lay Attitudes

Taken together, these principles predict that highly-developed countries with skilled workforces, individuals with higher human capital and socioeconomic status will hold more pro-trade attitudes than those with relatively lower human capital and social status. Some previous research has supported this view, finding that various measures of human capital are good predictors of trade preferences (e.g. Kaltenthaler, Gelleny, & Ceccoli, 2004; Scheve & Slaughter, 2001). Using data from the ISSP and WVS, Mayda and Rodrik (2005) obtained

results consistent with the factor endowments model. It was found that education and skill strongly predicted support for free trade in countries well-endowed with human capital. In countries poorly endowed with human capital, education and skill weakly predicted opposition to free trade. Mayda and Rodrik also found a small positive relationship between employment in a comparative-disadvantage sector and anti-trade attitudes. However, there was no significant relationship between employment in comparative advantage sectors and attitudes toward trade. This offers only weak evidence for the specific-factors model, and offers no substantial support of the hypothesis that laypeople understand and apply economic rationale to the issue of international trade.

Mayda and Rodrik's (2005) summary model of trade attitudes includes human capital and employment factors as discussed above, but also includes non-economic factors that relate to values, identity and attachment. These variables tend to produce stronger effects than the economic variables used to demonstrate the factor endowments model and the specific factors model. Overall, there are several aspects to Mayda and Rodrik's conclusions that demand scrutiny. Firstly, while the factor endowments model and specific factors model explain the benefits of trade and offer economically rational explanations for trade attitudes, research has shown that laypeople tend to not make economically rational decisions (e.g. Baron & Kemp, 2004; Bazerman, Moore, & Gillespie, 1999; Bhattacharjee, Dana, & Baron, 2017; Irwin, 2015; Rho & Tomz, 2017). Also, they generally do not consider the effect trade has on them personally when forming attitudes toward it, but rather the effect it has on a national level (Milner & Tingley, 2011; Sears & Funk, 1990a, 1990b). One study has shown that regardless of education level, people are more willing to protect low-skilled industries than high-skilled ones (Rho & Tomz, 2012). Some studies have further shown that people do not connect their personal concerns to their political preferences, but develop "symbolic predispositions" through the processing of national- and local-level information that

contribute to perceptions of constructs such as national identity (see Rankin, 2001; Brody & Sniderman, 1977; Mutz, 1994). Attitudes such as this are commonly termed “sociotropic,” as the individual’s perceptions are most affected by perceived ingroup outcomes, rather than personal outcomes (e.g. viewing a news story on the negative impact of trade would cause an individual to perceive trade more negatively, regardless of their personal circumstance or reality). The factor endowments and specific factors models also depend upon partially paradoxical assumptions that are not reflected in reality. The factor endowments model assumes that factors of production can move freely and quickly between sectors, which is not always the case (e.g. converting farm land into an industrial area is not an instant process). The specific factors model assumes that labour cannot move easily between sectors and subsequently comparatively-disadvantaged workers cannot move sectors to avoid competition from imports, which is, again, not always the case (e.g. many people have multiple qualifications). While there is an obvious distinction between human and non-human factors of production, neither assumption can be wholly true. Lastly, Mayda and Rodrik use level of education as a proxy measure of skill level. Subsequent research has demonstrated that education is likely not a valid measure of skill. Hainmueller and Hiscox (2006) argue that the effect of education on trade preferences is not primarily mediated by skill level, but a group of factors. Hainmueller and Hiscox’s empirical results indicate that the association between level of education and trade preferences might best be explained by exposure to economic ideas, rather than increasing skill level and therefore openness to trade as predicted by the factor endowments model. Mansfield and Mutz (2009) found that the effect of education on trade attitudes disappeared after controlling for national isolationism and ethnocentric attitudes, suggesting that outgroup anxiety, not skill-level, may be a strong proxy for education. Thus, education should be considered an invalid measure of skill and Mayda and Rodrik’s results should not be seen as supportive of the factor endowments

model. Further attempts have been made to retest these economic models of the issue of trade attitudes, with mixed results (e.g. Ardanaz, Murillo, & Pinto, 2013; Fordham & Kleinberg, 2012; Rho & Tomz, 2012). These economic models do appear to have some predictive validity, but the volatility of results between methodologies demonstrates unreliability, and further empirical data is needed to refine such theories.

People appreciate that trade benefits the economy, but they do not understand how the benefit reaches the individual within the economy. Consistent with social psychology theories of ingroup preferences, such as social identity theory (SIT; Tajfel & Turner, 1979), research has also shown that laypeople tend to form trade attitudes based upon the interests of their country, not individual interests. This predicts that laypeople may lean toward more protectionist views if the negative impacts of trade on the economy (e.g. competition for local producers and workers) are made more salient than the positive outcomes (e.g. improved access to cheaper goods and services) for the economy, rather than an emphasis on personal outcomes. Indeed, it clear than these sociotropic factors do influence attitudes toward trade (e.g. Mansfield & Mutz, 2009; Mutz, 1994; Rho & Tomz, 2017). When considering individual perceptions of national and local interests, various domains of social psychology become integral to the construction of theory.

1.4. Psychological Theories

It appears that economic considerations may factor into lay trade attitudes in some way. However, the whole literature offers no substantial case for economic models such as factor endowments and specific factors. The weight of recent evidence suggests that social rather than economic factors have more of an influence on the way that laypeople perceive trade. Mansfield and Mutz (2009) measured three broad dimensions. Firstly, indicators of the factor endowments and specific factors models as predicted by Mayda and Rodrik (2005).

Secondly, indicators of respondents' perceptions of how trade impacts on the financial conditions of their family and also their country as a whole. Lastly, indicators of non-economic influences on trade preferences, such as nationalism, isolationism, and ethnocentrism. Several findings from this study are noteworthy. Consistent with Sears and Funk (1990a, 1990b), Mansfield and Mutz (2009) find that individuals who believe trade is good for their nation's economy are more likely to support it. It was also found that union members are more likely to oppose trade even if they work in a non-tradable sector and therefore will not be adversely impacted. This is likely due to exposure to trade unionist ideology, in the same way that Hainmueller and Hiscox (2006) demonstrated that exposure to pro-trade sentiment in colleges significantly increases pro-trade attitudes. Mansfield and Mutz (2009) also replicated the finding that level of education positively predicts pro-trade attitudes. Individuals with a graduate school education were 65% more likely to support trade than those with no college degree, however, as mentioned above, this effect did not hold when attitudes of isolationism and ethnocentrism were controlled for, as level of education had a strong negative relationship with outgroup anxiety. Isolationism and ethnocentrism were strongly associated with opposition toward free trade. Overall, Mansfield and Mutz's (2009) research suggests two primary predictors of trade preferences: perceptions of the economic impact of trade on their ingroup, and cultural ingroup biases.

Fordham and Kleinberg (2012) reanalyse Mansfield and Mutz's (2009) data in order to address two concerns arising from the methodology and conclusions. Firstly, that the correlations between sociotropic attitudes and trade attitudes do not necessarily infer causation. Mansfield and Mutz (2009) conclude that the former attitudes cause the latter, but Fordham and Kleinberg (2012) contend that there are equally plausible alternative conclusions that could be drawn, such as an exogenous influence jointly causing both. For example, it may be that exposure to negative media coverage of trade jointly causes beliefs of

negative outcomes from trade and opposition to trade itself, rather than the belief causing the opposition. Secondly, they suggest that previous research is too narrow in its measurement of self-interest, and neglects information that contributes to one's concept of self-interest but come from sources other than economic fundamentals. Fordham and Kleinberg (2012) find little empirical evidence to offer serious revisions to Mansfield and Mutz's (2009) conclusions, but rightly assert that further data is needed to identify the pathways through which these views are formed.

Kemp (2007) laid out a prospective psychological framework for investigating pathways through which trade views are formed. Specifically, why lay attitudes toward trade are inconsistent with the attitudes of the economist.

1.4.1. Utility

Kemp (2007) first identifies that laypeople tend not to be intuitively utilitarian in their trade views. In economics, utility is generally considered to derive from consumption. Kemp (2007) cites Adam Smith (1776/2003, p. 839): "Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to, only so far as it might be necessary for promoting that of the consumer." The benefit from trade is largely argued to come through the utility gained from improved access to a wider variety of goods, and competition in the market which keeps prices down. However, those who are negatively affected by trade are typically employed in production sectors. It has been shown that, regardless of self-interest, people are more willing to protect those in lower-skilled sectors than higher-skilled, and are also ignorant of the economic consequences of protectionism (Rho & Tomz, 2012, 2017). While economists accept that the benefits of trade outweigh the small losses in employment that can result from it, the benefits of employment have been shown to extend far beyond pecuniary considerations. Even once loss of income is accounted

for, unemployment has been shown to have long-lasting, damaging effects on wellbeing (e.g. Lucas, Clark, Georgellis, & Diener, 2004; McKee-Ryan, Song, Wanberg, & Kinicki, 2005; Winkelmann & Winkelmann, 1998). Economic analyses do not factor nonpecuniary damages in, whereas altruistic laypeople may tend to.

1.4.2. Decision-Making Biases

Difficulty predicting future utility, framing effects, the endowment effect, risk aversion, loss aversion and status quo bias are inter-related decision-making phenomena that have been demonstrated to produce irrational decisions or inaccurate predictions in a variety of contexts (see Fernandez & Rodrik, 1991; Kahneman, Knetsch, & Thaler, 1991; Kahneman & Snell, 1992; Loewenstein & Adler, 1995; Madrian & Shea, 2001; Samuelson & Zeckhauser, 1988; Tversky & Kahneman, 1981). Kemp argues that these phenomena may account for part of the discrepancy between lay attitudes toward trade and those of the economist. However, this may only apply under circumstances in which protectionism is the incumbent position, as this family of phenomena primarily suggest an aversion to change. When one considers popular anti-trade sentiment, it is not difficult to interpret attitudes through the above phenomena (e.g. protectionist political rhetoric often frames trade deals in terms of job losses more so than improved utility from consumption). Indeed, some empirical evidence supports this. Hiscox (2006), for example, found that, in a survey, respondents that were given an anti-trade introduction emphasising job losses were 17% less likely to favour increasing trade than those that were asked the same question with no introduction. However, respondents given a pro-trade introduction that suggested lower consumer prices would result from trade were no more likely to support increasing trade than respondents who received no introduction (interestingly, it was also found that having knowledge of economists' endorsement of free trade reduces framing effects and significantly increases overall support

for trade liberalisation). Further, it was also found that less educated individuals were more sensitive to framing effects. Ardanaz et al. (2013) found that framing effects were not statistically different from zero in import-competing regions, but were statistically significant in non-import-competing regions. This trend held across high- and low-skill respondents, as well as highly- and less-educated respondents. Thus, it seems that negative framing is likely to have a larger effect than positive framing, and would be stronger where the consequences of trade are more ambiguous.

People often make poor predictions about their future utility. For example, people tend to attribute more value to something they already possess than something they do not, known as the endowment effect. Sun and Mellers (2016) found that participants were reluctant to trade items they own for “better” items, but were willing to accept upgrades to their endowed item which produced the same end result. People also generally do not account for how their preferences may change over time, and underestimate their ability to adapt to new circumstances (Kahneman, 1994). The suggested implication for trade preferences here is that people will be more likely to support current trade than prospective trade (i.e. they will be opposed to changes in the status quo). This is consistent with the widespread finding that people recognise the benefit of trade but oppose it in prospective particulars (e.g. the TPPA). Moreover, Kemp (2007) points out that while the liberalisation of trade may create a net financial gain, a net utility gain cannot be assumed due to the nonpecuniary utility losses from unemployment that are difficult to quantify (e.g. Lucas et al., 2004).

1.4.3. Altruism and Parochialism

It may be useful to consider how people conceptualise ingroups and outgroups within the context of trade. People often think altruistically on political matters, favouring the perceived good of the country over their own interests (e.g. Sears & Funk, 1990a). In this

case, one's country functions as an ingroup that elicits a bias. However, in the matter of trade, this bias tends to produce anti-trade belief, even if trade produces a net benefit to one's country. The importation of goods into a country places competitive pressure on local producers; if a local business produces a good for a greater price than what it can be imported for, the business will likely lose sales. Local producers will subsequently oppose competing imports, and may form groups to lobby against free trade that would adversely affect their business. When the cause of lobbyists is salient in the public sphere, this may sway people toward protectionism, as a small financial loss incurred from inhibiting free trade is outweighed by the utility derived from the perception that it will benefit the producers within their community and, by extension, their community as a whole. Ingroup cooperation against the perceived outgroup threat will be stronger when intergroup conflict is higher (e.g. Tajfel, 1982). This is reflected in the observation that attitudes of nationalism and isolationism positively predict anti-trade attitudes (Mansfield & Mutz, 2009, 2013). Rotemberg (2003) provides an economic model that explains how voter altruism may cause protectionist trade preferences.

It is not always clear which groups are intended to benefit from altruistic protectionism. Experiments using the "layered prisoners dilemma" model (e.g. Bornstein & Ben-Yossef, 1994; Halevy, Bornstein, & Sagiv, 2008; Schwartz-Shea & Simmons, 1990) have demonstrated that participants are often willing to choose an option that benefits their ingroup at the expense of themselves and the wider community. While people are parochial in this way with their preferences in these decision-making games, it is less known how this translates into the real world. Within the context of trade, and consistent with SIT, it may be the case that group membership is malleable depending on which information is salient. It has been shown that nationality functions as a strong ingroup in the matter of trade, but it may also be true that other ingroups affect trade attitudes. For example, a person might believe

that trade is good for the national economy, but personally know a local producer who would be negatively impacted by competing imports. In this case, a more proximal ingroup could be formed within wider society. Lastly, it has also been found in some cases that a willingness to restrict trade can depend upon the perceived impact on the other country in bilateral trade scenarios. In particular, there is a reluctance to import from low-wage countries, likely due to the perception of worker exploitation (Kemp, 2008). This implies that the in-group may not always be characterised by a nationality or community, but other factors, such as income and occupation, may produce intergroup biases when salient. There is a vast body of extant literature on self-categorisation and social identity (for a review, see Hornsey, 2008), which explores the pathways and motivations for intergroup biases.

1.4.4. Fairness in Trade and Bargaining

The extent to which individuals perceive a deal to be fair has been shown to greatly affect decisions made in trade and bargaining experiments. Experiments using ultimatum games have conclusively demonstrated that people will sacrifice personal gains for perceived fairness, even if it means both sides get nothing at all (e.g. Güth, Schmittberger, & Schwarze, 1982; Güth & Tietz, 1990). This has a clear implication for international trade attitudes: any compromise of perceived fairness (e.g. the other country unilaterally increasing import tariffs) would likely lower willingness to trade with that country. It has been shown that people do apply these fairness concerns to trade attitudes. Baron and Kemp (2004) found that perceived reciprocity strongly affected trade attitudes. In hypothetical trade scenarios, participants were far more willing to restrict imports from countries that did not reciprocate such trade than those that did. Further, the effects for reciprocity were larger than the effects observed for the status quo level of restriction and the effect that imports would have on unemployment. This suggests that perceptions of fairness may be more influential on trade

attitudes than some of the biases discussed above. It may also be that the large effects of fairness account for a significant proportion of the discrepancy in trade attitudes between the layperson and the economist. As Davidson, Matusz, and Nelson (2006, *p.* 989) point out, in the matter of trade liberalisation and protectionism, economists do not give weight to considerations of fairness as laypeople do, adding that economists find themselves “opposed to positions that appear to have their strongest support in fairness-based arguments.” Kaplow and Shavell (2003, 2009) provide a robust defence of the utilitarian consequentialism favoured by economists, concluding that independent notions of fairness, such as those observed in bargaining experiments, are counterproductive to overall human wellbeing and thus should not be attended to in policy. However, this is seldom the case in practice (for historical analysis of trade and immigration policy in some Western democracies, see Hatton & Williamson, 2006).

1.4.5. Fixed-Pie Beliefs

Fixed pie (or zero-sum) beliefs assume that there is a fixed amount of resource that can be distributed in a situation. They assert that if one party gains from a transaction, the other party must lose (i.e. if one entity takes a larger slice of the “fixed pie” then the other entity must get less). Economic theory has long dismissed the fixed-pie view as a fallacy, holding that trade benefits the greater good through enlarging the total “pie.” However, research has shown that laypeople do hold and apply these beliefs to inappropriately to bargaining situations (e.g. Bazerman et al., 1999; Pinkley, Griffith, & Northcraft, 1995). The same beliefs may contribute to anti-trade attitudes when the other country is perceived the benefit from a trade deal, and pro-trade attitudes when the other country is perceived to lose.

1.5. Goods Versus. People Through Integrated Threat Theory

People are self-evidently separate entities from other forms of economic movement (e.g. capital and goods). However migrating workers are, nonetheless, an economic phenomenon. Economic discussions of human migration often emphasise the movement in labour as a factor of production (see Hatton & Williamson, 2006). In this sense, basic economic theory suggests that trade and immigration policies should not differ from one another. Although this is rarely the case, as policies must be congruent with public opinion. To the layperson, an immigrating worker will pose threats beyond those that would be considered through economic research and discourse.

Social psychology has built a thorough understanding of lay attitudes toward immigrants. Prejudice toward immigrants is a well-documented phenomenon. A series of Pew Research Center polls (2014b) reported that, across seven European countries, people held strong anti-immigration views. For example, only 2% of Italian respondents believed that their country should allow more immigrants, while 80% believed they should allow less immigrants. The most pro-immigration country sampled was Germany, where 14% of respondents believed their country should allow more immigrants, but 44% believed they should allow less. Views toward immigration are less consistent in the US, and are heavily influenced by partisan divide. In a 2016 Pew Research Center poll, 33% of US respondents believed that immigrants were a burden on the country, taking jobs, housing, and healthcare away from Americans. Recent research has constructed explanations for these prejudices through integrated threat theory (W. G. Stephan & Stephan, 2000). Integrated threat theory focuses on four antecedents to anti-immigrant prejudice: realistic threats, symbolic threats, intergroup anxiety, and negative stereotypes. Basic definitions of the respective threats are best taken from W. G. Stephan and Stephan (2000, pp. 25-27):

Realistic threats: “[perceived] threats to the political and economic power of the ingroup, and threats to the physical or material well-being of the ingroup or its members.”

Symbolic threats: “perceived group differences in morals, values, standards, beliefs, and attitudes . . . These threats arise, in part, because the ingroup believes in the moral rightness of its value system.”

Intergroup anxiety: “people feel personally threatened in intergroup interactions because they are concerned about negative outcomes for the self, such as being embarrassed, rejected, or ridiculed.”

Negative stereotypes: “Almost all outgroup stereotypes embody threats to the ingroup because one of the functions of stereotypes is to serve as the basis for expectations of concerning the behaviour of members of the stereotyped group. To the extent that the expectations are negative, conflictual or unpleasant interactions are likely to be anticipated. The essence of threat is the fear of negative consequences, and that is exactly what negative stereotypes create.”

This model has been validated by a substantial amount of literature on the topic; all four threats have been shown under meta-analysis to significantly and independently predict attitudes toward immigration (Riek, Mania, & Gaertner, 2006). There is ample empirical research demonstrating that integrated threat theory is a valid explanatory model of prejudice across a variety of ingroup-outgroup contexts, including immigration (see, e.g. Renfro, Duran, Stephan, & Clason, 2006; C. W. Stephan, Stephan, Demitrakakis, Yamada, & Clason, 2000; W. G. Stephan, Ybarra, & Bachman, 1999). On face value, there is an obvious distinction between immigrant workers and importing goods: people are not commodities, and one would not expect them to be viewed as such. It is clear that there are unique threats that people pose that inanimate objects do not. Thus, it might be expected that people would be more resistant to immigrant workers than they would be toward importing goods. This is reflected in some research. For example, Mayda (2007) compared trade and immigration attitudes across 22 countries and found that—even with a trade question biased toward

protectionism and a neutral immigration question—respondents overall had a higher opinion of trade than immigration (only four countries out of the 22 sampled preferred immigration to trade). There were also significant positive correlations between immigration and trade attitudes found in all but three countries, although correlations were weak (overall $r = .21$). Taken together, these two findings suggest that trade and immigration attitudes are in part caused by some common factors (Hainmueller & Hopkins, 2014; Mansfield & Mutz, 2009), but there are some unique causes of anti-immigration beliefs that are not present or less pronounced when trade is considered. For example, O'Rourke and Sinnott (2006) found that, consistent with economic self-interest models, worker skill-level strongly predicts immigration attitudes, whereas skill-level as a predictor of trade attitudes has yielded little-to-mixed conclusions. It is possible that people pose a unique threat to the livelihood of low-skilled workers that goods do not. Immigrants are also often cited as an economic burden on resources, and are specifically blamed for crime in many countries (Pew Research Center, 2014b). Integrated threat theory provides a sound foundational framework to explain the differences between goods and immigrants.

While immigrant workers are likely to provide multiple threats according to Stephan and Stephan's (2000) model, it may be that imported goods elicit less of these threats, or similar threats to the lesser degree. While the four modelled threats are ostensibly interpersonal constructs, it is clear that at least some analogous threats do influence trade attitudes. For example, "American-made" or "Proudly made in NZ" are slogans commonly associated with quality goods in the US or NZ. It could be argued that this in itself is evidence of a realistic threat posed by imported goods, as it emphasises the perceived material superiority of the ingroup relative to outgroups. It may also suggest symbolic threat from non-American goods or non-NZ as manufacturing may form part of a nation's identity.

1.6. Capital Flow: Foreign Investment

Foreign investment is primarily different from foreign trade in that there is no good or service exchanged. Instead, a foreign entity invests capital into a firm in another country in order to receive a return through the operations of that firm. Generally, laypeople may tend to like foreign investment. For example, in a 2014(a) Pew Research Center poll, a median of 74% of respondents across 44 countries supported foreign companies building factories in their country. However, only 45% believed that foreign companies buying domestic companies was good. It is not clear how people's attitudes toward foreign investment function. It may be that, as suggested by the above poll results, perceptions depend on the form the investment takes. The present thesis sheds some light on perceptions of foreign investment.

1.7. Summary of Rationale

While the economist tends to support free trade unequivocally, the layperson does not. The present research comprises two scenario experiments that investigate a number of variables related to the phenomena discussed above. Scenario experiments in this area to date have each focused on one issue (e.g. Baron & Kemp, 2004; Kemp, 2008). However, as empirical findings in this area are unsubstantial, the scope for the present research is wide. This present experiments are the first attempt at comparing and contrasting attitudes towards imported goods, foreign investment, and immigrant workers within an experimental design. The present experiments provide a greater coverage of the area, and provide empirical bases for specific future research. Each experiment uses both a US and NZ sample.

2. Experiment One

2.1. Introduction

2.1.1. Design

The first experiment systematically varied three categorical variables in a 3 X 2 X 2 within-subjects repeated measures design. The three variables were: whether the import was goods, investment, or migrant workers; whether or not the proposed import was currently available in the respondents' country; and whether the goods/investment/workers were of high or low quality. For each scenario, respondents were instructed to respond on a 1 to 9 scale indicating their willingness to restrict trade or immigration.

2.1.2. Hypotheses

It was expected that availability would strongly predict trade attitudes: respondents would be more willing to restrict trade when similar imports or workers are locally available (e.g. Kemp, 2008). Respondents were also expected to favour greater restriction for low-quality imports and workers. For the last main effect, it was predicted that respondents will be more willing to restrict immigrant workers than goods (e.g. Mayda, 2007).

From the literature, it was not absolutely clear how these variables should be expected to interact, so this was of most interest. For example, Kemp (2008) found that respondents favoured greater restriction on imported goods from low-wage countries, and even more so when the foreign business owner made large profits. This was theorised to be the product of some form of international altruism produced by perceived exploitation. It could be expected that respondents will show an aversion to importing low quality goods, as it has been shown that product quality positively correlates with worker wages (e.g. Cowherd & Levine, 1992;

Verhoogen, 2008); respondents may assume low-quality imports to come from low-wage countries. Of course, there is also the fact that people simply prefer better quality goods. On the matter of poorly qualified workers, there is also a documented aversion in the literature (e.g. Hainmueller & Hiscox, 2010). While labour market competition theory predicts that people should oppose immigrants with similar skills to themselves, it is found that people consistently oppose low-skilled immigration due to sociotropic concerns and the perceived interest of the local economy (also see Hainmueller & Hopkins, 2014). Thus, we expected aversion to low-quality goods and low-skilled immigrant workers, but due to vastly different psychological phenomena. Any interaction between the quality and type variables would shed light on which process may be more powerful, and which considerations laypeople give more weight to.

2.2. Method

2.2.1. Respondents

The questionnaire was completed by 105 respondents from NZ and the US. Overall, the respondents ranged from 19 to 67 years old, with a mean age of 32.2, and a median of 30. Of the total respondents, 26 were currently full-time students.

Forty respondents from NZ were recruited through social media and email. The respondents each went in the draw to win a \$50 NZD shopping voucher. Six of the NZ respondents were currently full-time students, and 25 were male. The respondents ranged from 20 to 54 years old, with a mean age of 29.5 years old, and a median age of 24 years old.

Sixty-five US respondents were recruited through Crowdfunder (from which they were redirected to the questionnaire on Qualtrics via hyperlink). The respondents were given \$0.75 USD each upon completion of the questionnaire. Twenty of the US respondents were

currently full-time students, and 42 were male. The US respondents ranged from 19 to 67 years old, with a mean age of 33.9, and a median age of 32.

2.2.2. Questionnaire

Respondents were instructed to complete a 12-item questionnaire on international trade. The instructions included a brief explanation of the purpose of the experiment, and clarified some content that may have been otherwise unclear to respondents with a lack of understanding of international trade specifics. The questionnaire comprised twelve trade scenarios, and asked the respondent how they felt about each scenario on a nine-point restriction scale from 1 (allow trade with no restrictions) to 9 (allow no trade at all).

The scenarios systematically varied three factors in a 3 X 2 X 2 within-subjects design. The factors were: the type of trade (goods, workers, or investment), the current availability of that type of good/worker/investment in their country (high or low), and the quality of the imported good/worker/investment (high or low).

The questionnaire was presented online through Qualtrics, and the order of the scenarios was randomised.

2.2.2.1. Independent Variable One: Type

The first dimension varied the type of trade (goods, workers, investment), and was presented as one of three statements:

- A foreign firm wishes to import consumer goods into [respondent's country].
- Workers from a foreign country wish to live and work in [respondent's country].

- A foreign firm wishes to invest in [respondent's country]. It intends to build a factory in [respondent's country] to make consumer goods to sell in [respondent's country].
The factory will create local jobs.

2.2.2.2. *Independent Variable Two: Availability*

The presentation of the availability variable varied depending on whether the type was goods, workers, or investment. For trade in goods, the second statement was either:

- Goods of this type are currently produced in [respondent's country]. If people buy the foreign goods, a [respondent's country] firm will lose business.
- Goods of this type are currently not produced in [respondent's country].

For workers, the statement read as either:

- Local workers of this type are already highly available in [respondent's country]. If the foreign workers are allowed to come to [respondent's country], local workers will face increased competition for jobs.
- Local workers of this type are not readily available in [respondent's country].

For investment, the statement read as either:

- Goods of this type are currently produced in [respondent's country] by a [respondent's country]-owned firm. If people buy from the foreign firm, the [respondent's country]-owned firm will lose business.

- Goods of this type are currently not produced in [respondent's country].

2.2.2.3. *Independent Variable Three: Quality*

The presentation of the quality variable depended on both the type variable (goods, workers, or investment), and availability variable (available or not available). When applicable, the quality of imports was given relative to their locally-produced equivalent. Imports were always stated to be sold cheaper than their locally-produced equivalent. For trade in goods, the quality variable read as either:

- The goods are of a higher quality than those produced in [respondent's country], and will be sold for a slightly lower price.
- The goods are high quality.
- The goods are of a lower quality than those produced in [respondent's country], and will be sold for a slightly lower price.
- The goods are low quality.

For immigrant workers, the quality variable read as either:

- The workers are highly qualified.
- The workers have little qualifications.

For investment, the quality variable read as either:

- The goods will be of a higher quality than those produced by [respondent's country]-owned firm, and will be sold for a slightly lower price.
- The goods will be high quality.

- The goods will be of a lower quality than those produced by the [respondent's country]-owned firm, and will be sold for a slightly lower price.
- The goods will be low quality.

2.2.2.4. *Dependent Variable: Restriction Scale*

Each scenario was followed by a nine-point restriction scale, with the captions altered to match the first dimension of each scenario. The captions were:

1. Allow imports with no tariffs or restrictions/Allow workers with no restrictions/Allow investment with no restrictions.
5. Allow some imports with restrictions/Allow some workers with restrictions/Allow some investment with restrictions.
9. Allow no imports at all/Allow no workers at all/Allow no investment at all.

Thus, an example of one full scenario:

A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently produced in New Zealand. If people buy the foreign goods, a New Zealand firm will lose business.

The goods are of a higher quality than those produced in New Zealand, and will be sold for a slightly lower price.

1	2	3	4	5	6	7	8	9
Allow imports with no tariffs or restrictions			Allow some imports with restrictions			Allow no imports at all		

In the general instructions, the respondents read the following:

“At one extreme you can decide that importations should occur without any restriction and without paying any tariff (a tariff is a special tax on imported goods). At the other extreme you can decide that importation should not be allowed at all. In between, you might think that only some importations should be allowed and/or the importers of the goods should pay a tariff (which will raise the price of the imported goods and make people less likely to buy them.)”

2.3. Results

The data obtained from nine participants were excluded from the analysis due to missing data entries. Two were from NZ; seven were from the US. The analyses were carried out with data from the remaining 96 respondents.

2.3.1 Repeated Measures ANOVA

Over all 12 scenarios in the questionnaire, the mean restriction score was 4.80 ($SD = 2.28$).

The key results were tested in a 3 X 2 X 2 repeated measures within-subjects analysis of variance. Respondents favoured greater restrictions on trade that was of low quality ($Mean = 5.53$, $SD = 2.20$) than high quality ($Mean = 4.07$, $SD = 2.13$; $F[1, 95] = 81.1$, $p < .001$). Respondents also supported greater restrictions when the proposed import was available or produced in their country ($Mean = 5.37$, $SD = 2.22$) than when it was not ($Mean = 4.23$, $SD = 2.20$; $F[1, 95] = 60.5$, $p < .001$). There was no significant main effect between goods, workers, and investment ($p > .05$). Lastly, there was a significant interaction between type

and availability ($F[2, 190] = 18.1, p < .001$), as, while availability had an effect across all trade types, it had a pronounced effect when the scenario proposed immigrant workers (see Figure 1). A strong positive correlation was found between goods and investment, suggesting that respondents viewed the two similarly. A moderate positive correlation was also found between goods and workers (Table 1).

Table 1. Pearson correlations between trade types for all respondents, averaged over each respondent's four responses for each type.

	1.	2.	3.
1. Good		.45***	.83***
2. Worker	.45***		.45***
3. Investment	.83***	.45***	

Notes: 1. All scales ordered so that a positive direction indicates an anti-trade attitude; 2.

All correlations significant at ***.001 level.

2.3.2. Split-Plot Analyses

Further analyses of variance were conducted with gender and sample.

2.3.2.1. Gender

Firstly, a split-plot ANOVA was run with gender (male or female) as the fourth categorical variable. Gender had no main effect ($p > .05$), but was shown to interact with quality ($F[1, 36] = 9.29, p = .004$), as female respondents favoured greater restriction on low quality imports ($Mean = 6.14; SD = 2.02$) than male respondents ($Mean = 5.16, SD = 2.22$). Additionally, gender was found to interact three-way with quality and type ($F[2, 72] = 3.60, p$

= .032), as the greater preference for restriction of low quality imports among females was stronger for goods and investment than immigrant workers. There was also a weak interaction between gender, quality, and availability ($F[1, 36] = 4.40, p = .043$).

2.3.2.2. Sample

Another split-plot ANOVA was run with sample (NZ or US) as the fourth categorical variable. Sample had no main effect ($p > .05$), but was found to interact with availability ($F[1, 37] = 49.4, p < .001$) and quality ($F[1, 37] = 9.60, p = .004$). The availability of imports was found to have a greater effect on NZ respondents (Available/Not Available $M_{\text{diff}} = 1.96$) than US respondents ($M_{\text{diff}} = 0.60$). This interaction was exacerbated when the scenario proposed workers rather than goods or investment (Figure 1; $F[2, 74] = 3.33, p < .05$). The quality of imports was found to have a greater effect on NZ respondents (High/Low Quality $M_{\text{diff}} = 1.82$) than US respondents ($M_{\text{diff}} = 1.24$).

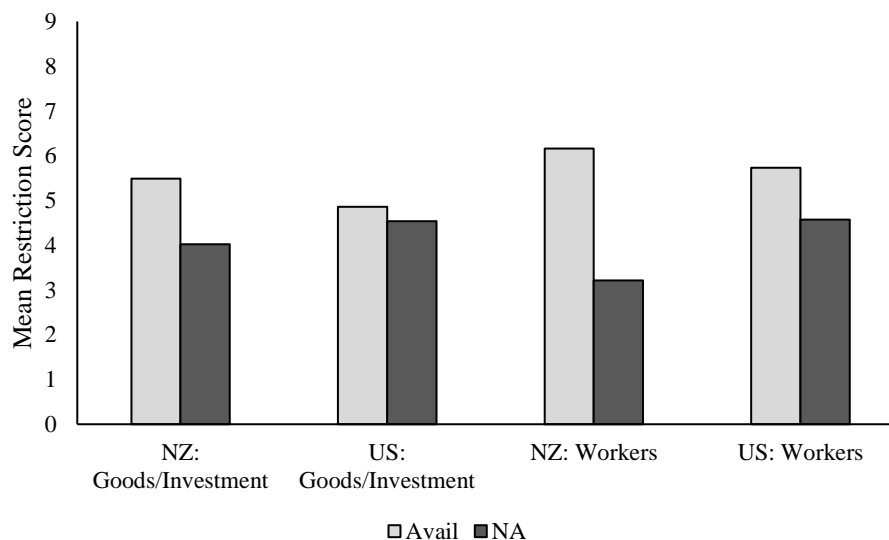


Figure 1. Mean restriction scores by trade type and availability for NZ and US samples (Note: Mean taken for trade in goods and investment).

Table 2. Mean restriction scores for NZ and US samples.

	NZ	US
Goods	4.79	4.72
Workers	4.68	5.15
Investment	4.72	4.67
High Quality	3.82	4.23
Low Quality	5.64	5.47
Available	5.71	5.15
Not Available	3.75	4.55
Overall	4.73	4.85

Note: Restriction scores range from 1 (allow trade with no restrictions) to 9 (allow no trade at all).

2.3.3. Independent Sample Analyses

Independent repeated measures ANOVAs and gender split-plots were conducted on each sample. They can be found in Appendix B (NZ sample) and Appendix C (US sample).

2.4. Discussion

2.4.1. Summary

The neutral tendency and high standard deviations of the responses indicates an overall lack of certainty around the impacts of international trade, and is consistent with similar scenario experiments in this area (e.g. Kemp, 2008). As predicted, quality and domestic availability were found to have large effects on restriction preferences. The strong preference for imports that are not available domestically suggests that people value home production, and view international competition unfavourably. The implication is that laypeople consider the production of goods, and the employment this creates. Further, it is shown that laypeople consider employment opportunities for national citizens as particularly important, as availability was shown to have an even larger effect for immigrant workers. As pointed out in the Chapter One, economists do not consider production as they do consumption, so this is one likely source of disagreement between the layperson and the economist.

No main effect on the restriction scale was found between the types of trade when both samples were taken together. Only US respondents were found to significantly favour greater restriction for immigrant workers over imported goods and foreign investment. The NZ sample actually favoured slightly greater restriction for trade in goods and investment than immigrant workers, although this difference was not significant. One significant interaction held across both samples: domestic availability had a greater effect when the scenario proposed immigrant workers rather than goods or investment. For US respondents, this interaction was stronger in females than males, as females showed a strong aversion to immigrant workers that would compete for local jobs. The between-samples split-plot analyses revealed some interesting national differences. The NZ sample had greater variability than the US sample. Generally, the variables tended to affect NZ respondents more than US respondents, who were more anti-trade overall (although not significantly so). There was also a very strong correlation between restriction preferences for trade in goods and

investment, indicating that respondents make little distinction between the two. This is interesting, particularly in NZ where foreign ownership is currently a contentious topic. It has some notable implications for policy which will be discussed in Chapter Four. Also, a moderate correlation was found between restriction preferences for goods and workers, supporting the theory that there are some common threats associated with both.

2.4.2. Workers, Goods, and Availability

Perhaps the most striking finding from this experiment is that trade type consistently moderated the effect of availability on restriction scores. When the domestic market was already producing, respondents favoured greater restrictions for immigrant workers over imported goods. This interaction was particularly pronounced within the NZ sample. These results suggest that realistic threats associated with immigrant workers are strong. Our results tell us little about symbolic threats, as they would not be prone to market variables. It is only suggested that respondents in this experiment saw workers as a bigger realistic threat than goods when the respective market was already satisfied domestically. There are two possible explanations for this. Firstly, it may be that the samples obtained were low for ethnocentrism and cultural dominance (i.e. more socially liberal). The fact that the overall mean restriction score was neutral suggests that the sample was not high in these traits, however one would expect significantly lower restriction scores for workers if it were a sample low in ethnocentrism and cultural dominance. If this was the case, symbolic threats would not be a strong factor in trade immigration attitudes; instead, anti-immigration attitudes would be produced primarily by realistic threats, as our results indicate. Secondly, and most likely, is that the question evoked realistic threats by stressing competition for jobs within the relevant scenario: “If foreign workers are allowed to come to [respondent’s country], local workers will face increased competition for jobs.” The survey itself may also have framed for realistic

threats over symbolic threats by nature of being a questionnaire about “international trade” rather than immigration. Regardless of availability, the US sample had a greater aversion to immigrants than goods, and a much greater aversion to immigrants than the NZ respondents. The implication here is that some non-economic threats, such as symbolic threats or some other threat that our variables did not capture, were more active in forming US immigration attitudes than NZ immigration attitudes.

2.4.3. Gender

While gender produced no main effects across this experiment, some interactions provide detail about why females may generally favour greater trade restrictions than males (e.g. Ardanaz et al., 2013; Hiscox, 2006; Mansfield & Mutz, 2009; Mayda & Rodrik, 2005). Females consistently favoured greater restriction on low-quality imports than males, and this was pronounced for trade in goods among NZ respondents. This suggests that females consider the quality of imported goods more than males do. This may be simply because females prefer quality goods. It may also be related to international altruism toward exploited workers, a perception proposed by Kemp (2008). It is not conclusive that females are generally more altruistic than males, however it has been found that they value altruism higher than males (Andreoni & Vesterlund, 2001; Dietz, Kalof, & Stern, 2002). In hypothetical scenarios such as the ones in this experiment, the mere ideal of altruism is likely to be more active than the actual phenomenon of altruism. While not its central objective, the second experiment in the present thesis further investigates the latter proposition.

3. Experiment Two

3.1. Introduction

3.1.1. Design

The second experiment systematically varies four categorical variables in a 2 X 2 X 2 X 2 within-subjects repeated measures design. The four variables are: whether the import was goods or migrant workers; whether the proposed import was currently available in the respondents' country; whether the other country reciprocated such trade or migration; and whether the other country paid its workers high or low wages. As the correlations between responses for imported goods and capital investment were very strong in Experiment One, it was decided to omit investment from Experiment Two. For each scenario, respondents were instructed to respond on three 1 to 9 scales indicating: their willingness to restrict such trade or immigration; whether the scenario would benefit their own country; and whether the scenario would benefit the other country.

3.1.2. Hypotheses

The dependent variables would expose some biases should they be present. Firstly, a negative correlation between perceived benefit to one's own country and perceived benefit to the other country would suggest some form of fixed-pie thinking as suggested by Kemp (2007). Moreover, a strong positive correlation between perceived benefit to one's own

country and a reluctance to restrict imports and immigrants is predicted as people are parochial and biased toward the interests of their own country (e.g. Mansfield & Mutz, 2009). Of interest will be whether the wage variable affects the restriction measure differently for imported goods and immigrant workers. There should be a reluctance to import goods from low-wage countries (Kemp, 2008), however Kemp also concluded that this aversion may stem from an international altruism toward an exploited lower class. It may be that the willingness of the layperson to protect low-skilled workers (e.g. Rho & Tomz, 2012) extends beyond nationality, so it is possible that restrictive attitudes on immigration may soften, despite sociotropic concerns, if there is a perception that such immigration would save people from exploitation. However, as explained above, it has been previously shown that people do not tend to support low-skill immigration. They may, however, make a distinction between skill and wage. Respondents were expected to favour greater restrictions on imported goods when the other country does not reciprocate such trade (e.g. Baron & Kemp, 2004), which would provide further evidence that people do consider notions of fairness in international trade. Of interest was whether the same effect is observed for immigrant workers. Clearly laypeople do distinguish between migrant workers and goods, so reciprocation of free movement may not have the same persuasion when migrant workers are considered.

3.2. Method

3.2.1. Respondents

The questionnaire was completed by 142 respondents from NZ and the US. Overall, the respondents ranged from 18 to 66 years old, with a mean age of 26.1, and a median age of 23. Of the total respondents, 83 were full-time students.

Ninety-two NZ respondents were recruited through social media, email, and advertising at the University of Canterbury. NZ participants each went in the draw to win one

of two \$50 NZD shopping vouchers. Of the NZ respondents, 63 were currently full-time students, and 39 were male. These respondents ranged from 18 to 48 years old, with a mean age of 22.5 years old, and a median age of 22 years old.

Fifty US respondents were recruited through Crowdfunder (from which they were redirected to the questionnaire on Qualtrics via hyperlink). They were rewarded with \$1 USD each upon completion of the questionnaire. Overall, 20 of the US respondents were currently full-time students, 32 were male, 17 were female, and one respondent identified as neither. These respondents ranged from 20 to 66 years old, with a mean age of 32.8, and a median age of 30.5.

3.2.2. Questionnaire

Respondents were instructed to complete a 16-item questionnaire on international trade. As for Experiment One, the instructions included a brief explanation of the purpose of the experiment, and clarified some content that may have been otherwise unclear to respondents with a lack of understanding of international trade. There were some differences, e.g. the brief explanation of the availability variable noted: “If the type of good or worker is currently available in NZ, local firms or workers will face increased competition from imports.” To keep the scenarios as concise as possible, this was preferred to including this information in the relevant scenarios, as was done in Experiment One. The strong correlation between trade in goods and investment in Experiment One also suggests that respondents make little distinction between the two, so the investment condition was dropped for Experiment Two. After the instructions, basic demographic information was requested: age, gender, nationality, and whether they are currently a full-time student. The main part of the questionnaire comprised 16 trade scenarios. Each scenario was responded to on three nine-point scales.

The scenarios systematically varied four binary factors in a within-subjects design. The factors were: the type of trade (goods or workers), the current availability of that type of good/worker/investment in their country (high or low), whether such trade is reciprocated by the other country (yes or no), and whether the other country pays its workers high or low wages.

The questionnaire was presented online through Qualtrics, and the order of the scenarios was randomised.

3.2.2.1. Independent Variable One: Type

The first dimension varied the type of trade, and was presented as one of two statements:

- A foreign firm wishes to import consumer goods into [respondent's country].
- Workers from a foreign country wish to live in work in [respondent's country].

3.2.2.2. Independent Variable Two: Availability

The availability variable varied the domestic availability of the proposed good or workers, and was presented as one of two statements:

- [Goods/Local workers] of this type are [currently produced/readily available] in [respondent's country].
- [Goods/Local workers] of this type are [not currently produced/not currently available] in [respondent's country].

Note: When the scenario proposed a good that was currently produced in the respondent's country, it was added that it was produced by a nationally-owned firm.

3.2.2.3. Independent Variable Three: Reciprocity

The reciprocity variable varied whether the other country did or did not reciprocate such trade, and was presented as one of two statements:

- [The foreign firm is based in/The workers come from a country] which freely imports from [respondent's country].
- [The foreign firm is based in/The workers come from a country] which does not import freely from [respondent's country].

3.2.2.4. Independent Variable Four: Wage

The wage variable varied whether the foreign country paid a high or low wage to its workers, and was presented as one of two statements:

- [The foreign firm is based in/The workers are from] a country that pays high wages to its workers.
- [The foreign firm is based in/The workers are from] a country that pays low wages to its workers.

3.2.2.5. Dependent Variable One: Restriction

After each scenario, the respondents were presented with three 1 to 9 scales. The first was a restriction scale that asked the respondents: "How do you feel about importing these [goods/workers]?" The scale had the following captions:

1. Allow [imports/immigrants] with no restrictions.
5. Allow some [imports/immigrants] with [tariffs/restrictions].
9. Allow no [imports/immigrants] at all.

3.2.2.6. *Dependent Variable Two: Benefit to Own Country*

The second scale asked the respondents: “Would this trade benefit your country as a whole?” The scale had captions for 1 (Certainly yes), 5 (Not sure), and 9 (Certainly no).

3.2.2.7. *Dependent Variable Three: Benefit to Other Country*

The second scale asked the respondents: “Would this trade benefit the other country as a whole?” The scale had captions for 1 (Certainly yes), 5 (Not sure), and 9 (Certainly no).

Thus, an example of a full scenario:

A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently produced in New Zealand by a New Zealand-owned firm.

The foreign firm is based in a country which imports freely from New Zealand.

The foreign firm is based in a country that pays high wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

3.3. Results

The data obtained from nine respondents were excluded from the NZ sample on the basis that they either failed to respond on every scale, or completed the questionnaire in less than 200 seconds. All analyses for this sample were carried out with the data from the remaining 83 respondents. The data obtained from seven participants were similarly excluded from the US sample. All analyses for this sample were carried out with data from the remaining 43 participants.

3.3.1. Repeated Measures ANOVA

The key results for Experiment Two were tested in 2 X 2 X 2 X 2 repeated measures analyses of variance on each dependent variable.

3.3.1.1. Restriction

One respondent favoured totally unrestricted trade (Restriction score = 1) for every scenario that proposed imported goods. The overall mean restriction score across all participants was 4.52 ($SD = 2.16$). On this scale, main effects were detected for all independent variables. Respondents favoured greater restrictions on importing goods ($Mean = 4.63$, $SD = 2.22$) than immigrant workers ($Mean = 4.41$, $SD = 2.10$; $F[1, 125] = 5.09$, $p = .026$). Respondents favoured much greater restriction on imports and workers that were already available in their country ($Mean = 5.34$, $SD = 2.07$) than those that were not ($Mean$

3.70, $SD = 1.94$; $F[1, 125] = 175.0, p < .001$). Greater restriction was also supported when trade was not reciprocated ($Mean = 4.85, SD = 2.17$) than when it was reciprocated ($Mean = 4.20, SD = 2.11$; $F[1, 125] = 50.8, p < .001$). Finally, respondents favoured greater restriction with low-wage countries ($Mean = 4.70, SD = 2.17$) than high-wage countries ($Mean = 4.34, SD = 2.17$; $F[1, 125] = 21.0, p < .001$).

Several interactive effects were also found on the restriction scale. Type and wage produced a significant interaction ($F[1, 125] = 39.8, p < .001$), as respondents showed a strong aversion to importing goods from low-wage countries ($Mean = 5.02, SD = 2.20$), but not workers ($Mean = 4.39, SD = 2.09$). Wage was also found to interact weakly with availability ($F[1, 125] = 6.21, p = .014$), as respondents were more affected by whether the trade was with a high- or low-wage country when the good or worker was not currently available (High/Low Wage $M_{diff} = .52$) compared to when it was already available (High/Low Wage $M_{diff} = .22$).

Finally, an interaction was found with all four independent variables ($F[1, 125] = 7.62, p = .007$).

3.3.1.2. Benefit to Own Country

Over all respondents, the mean benefit to own country rating was 4.03 ($SD = 2.28$). On this scale, main effects were detected for all independent variables except type. Respondents perceived greater benefit to their country when the proposed import or worker was not available ($Mean = 2.98, SD = 1.85$) than when it was available ($Mean = 5.07, SD = 2.19$; $F[1, 125] = 174.7, p < .001$). Respondents further perceived greater benefit to their country when trade was reciprocated ($Mean = 3.78, SD = 2.17$) than when it was not reciprocated ($Mean = 4.28, SD = 2.36$; $F[1, 125] = 35.1, p < .001$). Respondents viewed trade

with high-wage countries to be of greater benefit to their country ($Mean = 3.88, SD = 2.25$) than trade with low-wage countries ($Mean = 4.17, SD = 2.30; F[1, 125] = 17.3, p < .001$).

Only one interaction was detected on this measure: a weak interaction between type and wage ($F[1, 125] = 3.98, p = .048$). When dealing with a low-wage country, respondents perceived a greater benefit to their own country when workers immigrated ($Mean = 4.02, SD = 2.31$) rather than goods being imported ($Mean = 4.33, SD = 2.28$).

3.3.1.3. Benefit to Other Country

Over all respondents, the mean benefit to other country rating was 3.91 ($SD = 2.13$). On this scale, main effects were detected for all independent variables except wage. Respondents considered the other country to gain more when they exported goods ($Mean = 3.51, SD = 2.06$) rather than workers emigrating ($Mean = 4.31, SD = 2.12; F[1, 125] = 43.8, p < .001$). Respondents also perceived greater benefit to the other country when the respondent's country receives goods or workers not currently available ($Mean = 3.82, SD = 2.16$) compared to when the goods or workers are already available ($Mean = 4.00, SD = 2.09; F[1, 125] = 4.06, p = .046$), and when trade was reciprocated ($Mean = 3.76, SD = 2.10$) than when it was not reciprocated ($Mean = 4.06, SD = 2.14; F[1, 125] = 13.7, p < .001$).

Several interactions were detected on this scale. Availability had little effect when trade was not reciprocated (Available/Not Available $M_{diff} = .03$), but a greater effect when trade was reciprocated (Available/Not Available $M_{diff} = .33; F[1, 125] = 5.01, p = .027$). A strong interaction was found between type and wage ($F[1, 125] = 26.9, p < .001$), as less benefit was perceived for high-wage countries losing workers, compared to exporting goods (Table 3). Wage was also found to interact with availability ($F[1, 125] = 15.3, p < .001$); when the good or migrant worker was not available locally, respondents perceived the other (exporting) country to benefit more when it paid high wages to its workers ($Mean = 3.62, SD$

= 2.14) rather than low wages (*Mean* = 4.02, *SD* = 2.17). Finally on this scale, a three-way interaction was detected between type, reciprocity, and wage ($F[1, 125] = 8.71, p = .004$).

Table 3. Overall mean benefit to other country scores for trade with high- and low-wage countries in goods and migrant workers.

	Goods	Workers
High-wage	3.22	4.46
Low-wage	3.80	4.16

Note: Scores range from 1 (Certainly yes) to 9 (Certainly no), meaning a higher number indicates a more anti-trade attitude.

3.3.1.4. Correlations Between Measures

All dependent measures were found to positively correlate. A strong correlation was found between restriction preferences and perceived benefit to own country. A moderate correlation was found between the two perceived benefit measures, while a moderate correlation was also found between perceived benefit to the other country and restriction ratings (Table 4). When the correlations were analysed separately for goods and workers, they remained significant and positive, although the correlations for workers tended to be slightly weaker. A strong correlation was found between restriction preferences for goods and workers when each respondent's ratings were averaged across each of the two types ($r = .65, p < .001$). Further, the correlations between good restriction and worker restriction were looked at independently for each sample. US respondents' restriction preferences for imported goods were found to correlate very strongly with their restriction preferences for

immigrant workers ($r = .89, p < .001$). The NZ sample's restriction ratings between goods and workers correlated only moderately ($r = .46, p < .001$).

Table 4. Pearson correlations between the three dependent measures, averaged over all 16 of each respondent's responses on that scale.

	1.	2.	3.
1. Restriction		.76***	.52***
2. Own Country	.76***		.61***
3. Other	.52***	.61***	
Country			

Notes: 1. All scales ordered so that a positive direction indicates an anti-trade (restriction) attitude; 2. All correlations significant at ***.001 level.

3.3.2. Split-Plot Analyses

As was done in the first experiment, split-plot analyses were run. Firstly, whether or not each respondent was a current student was dichotomised as the fifth independent variable. Then the same was done with gender (male and female), and sample (NZ and US). ANOVAs were run on each dependent measure.

3.3.2.1. Studentship

There was no main effect on any dependent variable between whether respondents were currently students or non-students. However, one notable interaction was found on the restriction scale ($F[1, 54] = 6.85, p = .011$). Both students and non-students favoured greater

restriction on imported goods from low-wage countries than high-wage countries. However, when the scenario proposed immigrant workers, students favoured greater restriction on workers from high-wage countries ($Mean = 4.31, SD = 2.04$) than low wage countries ($Mean = 4.07, SD = 2.05$). The opposite was true for non-students, as they favoured greater restriction on workers from low-wage countries ($Mean = 4.80, SD = 2.08$) than high-wage countries ($Mean = 4.60, SD = 2.18$).

3.3.2.2. Gender

Gender was found to have a main effect on the restriction ($F[1, 58] = 9.75, p = .003$) and benefit to own country ($F[1, 58] = 9.60, p = .003$) scales. Males perceived greater benefit to their country ($Mean = 3.81, SD = 2.21$) than females ($Mean = 4.27, SD = 2.23$) over all trade scenarios. Males also favoured less restriction ($Mean = 4.27, SD = 2.12$) than females ($Mean = 4.80, SD = 2.18$) over all scenarios. On these same two scales, an interaction was detected between gender and type of trade (Restriction: $F[1, 58] = 7.79, p = .007$; Own Country: $F[1, 58] = 7.83, p = .007$). Males demonstrated no preference for either goods or workers, with very small mean differences on both scales (Restriction $M_{diff} = .03$; Own Country $M_{diff} = .04$). However, females perceived their own country to benefit more from immigrant workers ($Mean = 4.06, SD = 2.21$) than imported goods ($Mean = 4.49, SD = 2.22$). They also favoured less restriction on immigrant workers ($Mean = 4.55, SD = 2.09$) than imported goods ($Mean = 5.06, SD = 2.24$).

Gender and trade type further interacted with wage on the restriction scale (Table 15; $F[1, 58] = 14.67, p < .001$). Table 5 shows that females favoured greater restriction than males for all four conditions present between the two variables. Notably, females showed a much higher aversion to goods ($Mean = 5.64, SD = 2.04$) from low-wage countries than males ($Mean = 4.47, SD = 2.19$), as well as a relative lack of aversion to workers from low-

wage countries ($Mean = 4.45$, $SD = 2.14$). When the scenario proposed trade with a high-wage country, males showed a relative willingness to accept both workers ($Mean = 4.24$, $SD = 2.16$) and especially goods ($Mean = 4.04$, $SD = 2.07$). Taken together, this result shows that females favour greater restrictions on all trade with high-wage countries, but only imported goods from low-wage countries.

Table 5. Male and female mean restriction ratings for imported goods and immigrant workers with high- and low-wage countries.

	High Wage			Low Wage	
	Male	Female		Male	Female
Goods	4.04	4.47	Goods	4.47	5.64
Workers	4.24	4.65	Workers	4.34	4.45

Note: Restriction scores range from 1 (allow trade with no restrictions) to 9 (allow no trade at all).

3.3.2.3. Sample

Sample was found to have no significant main effect on any measure ($p > .05$).

3.3.2.3.1. Restriction

On the restriction scale, sample was found to have two-way interactions with three other independent variables (Table 6). The NZ respondents favoured greater restriction ($Mean = 4.72$, $SD = 2.28$) than the US sample for trade in goods ($Mean = 4.46$, $SD = 2.11$), while the US sample favoured greater restriction ($Mean = 4.55$, $SD = 2.07$) for trade in workers than the NZ sample ($Mean = 4.34$, $SD = 2.11$; $F[1, 42] = 5.27$, $p = .027$). When the proposed import was already locally available, NZ respondents favoured greater trade

restriction ($Mean = 5.53$, $SD = 2.01$) than US respondents ($Mean = 4.98$, $SD = 2.13$). When the proposed import was not locally available, US respondents ($Mean = 4.03$, $SD = 1.93$) favoured greater restriction than NZ respondents ($Mean = 3.53$, $SD = 1.92$; $F[1, 42] = 15.2$, $p < .001$). US respondents also favoured greater restriction ($Mean = 4.43$, $SD = 2.05$) than NZ respondents ($Mean = 4.08$, $SD = 2.14$) when the trade was reciprocated by the other country. When the trade was not reciprocated by the other country, NZ respondents favoured greater restriction ($Mean = 4.98$, $SD = 2.18$) than US respondents ($Mean = 4.58$, $SD = 2.12$; $F[1, 42] = 15.2$, $p < .001$).

Table 6. Mean restriction scores for NZ and US samples for three significant sample interactions.

	NZ	US
Type		
Goods	4.72	4.46
Workers	4.34	4.55
Availability		
Available	5.53	4.98
Not Available	3.53	4.03
Reciprocity		
Reciprocated	4.08	4.43
Not Reciprocated	4.98	4.58

Note: Restriction scores range from 1 (allow trade with no restrictions) to 9 (allow no trade at all).

A three way interaction between sample, type, and wage was also found on the restriction scale (Figure 2; $F[1, 42] = 5.33, p = .026$). When trade was proposed with a high-wage country, the between-sample differences were small for both goods ($M_{\text{diff}} = .06$) and workers ($M_{\text{diff}} = .07$). When imported goods from a low-wage country were proposed, NZ respondents favoured greater restriction ($Mean = 5.22, SD = 2.21$) than US respondents ($Mean = 4.63, SD = 2.13$) when their country imported goods. However, when the scenario proposed immigrant workers from a low-wage country, US respondents favoured greater restriction ($Mean = 4.62, SD = 2.08$) than NZ respondents ($Mean = 4.27, SD = 2.09$).

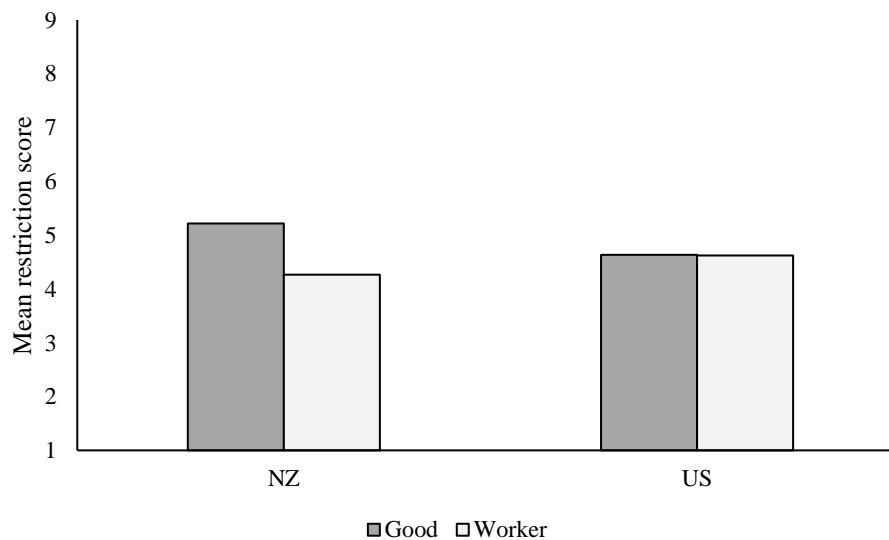


Figure 2. Mean restriction scores for NZ and US respondents for importing goods and immigrant workers from a low-wage country.

3.3.2.3.2. Benefit to Own Country

On the benefit to own country scale, significant interactions with the sample were detected for availability ($F[1, 42] = 5.09, p = .029$) and reciprocity ($F[1, 42] = 8.32, p = .006$). When the proposed import was locally available, NZ respondents perceived less

benefit to their own country ($Mean = 5.21, SD = 2.13$) than US respondents ($Mean = 4.81, SD = 2.28$). When the proposed import was not locally available, US respondents perceived less national benefit ($Mean = 3.50, SD = 1.98$) than NZ respondents ($Mean = 2.71, SD = 1.72$). US respondents also perceived less national benefit ($Mean = 4.06, SD = 2.11$) than NZ respondents ($Mean = 3.63, SD = 2.20$) when the trade was reciprocated by the other country. When the trade was not reciprocated, NZ respondents perceived less national benefit ($Mean = 4.30, SD = 2.36$) than US respondents ($Mean = 4.24, SD = 2.35$).

Two three-way interactions involving sample were also found on the benefit to own country scale. Sample, type, and reciprocity were found to interact ($F[1, 42] = 5.84, p = .020$). When the trade was in goods, respondents from both samples perceived less benefit when the trade was not reciprocated compared to when it was. When the trade was in workers, NZ respondents followed the same trend and preferred trade in workers that was reciprocated ($Mean = 3.48, SD = 2.16$) than not reciprocated ($Mean = 4.12, SD = 2.39$). However, the US respondents showed relative ambivalence toward the reciprocation of worker migration, perceiving less benefit when the trade was reciprocated ($Mean = 4.26, SD = 2.16$) than when it was not reciprocated ($Mean = 4.15, SD = 2.33$). A weak three-way interaction was also found between sample, availability, and wage ($F[1, 42] = 4.22, p = .046$).

3.3.2.3.3. *Benefit to Other Country*

Only one significant interaction with nationality was detected on the benefit to other country scale: a weak three-way interaction between nationality, type, and wage ($F[1, 42] = 4.46, p = .041$). When the importing goods, compared to the US respondents, NZ respondents perceived greater benefit to the other country when the trade was with both a high- and low-wage country (Table 7).

Table 7. Mean perceived benefit to other country for NZ and US samples when importing goods from high- and low-wage countries.

	NZ	US
High-wage	2.90	3.84
Low-wage	3.68	4.03

Note: Benefit to other country scores range from 1 (certainly yes) to 9 (certainly no).

3.3.3. *Independent Sample Analyses*

Independent sample analyses were carried out. Tables 8 and 9 summarise the main effects present for each sample. The appendices contain full analyses of the NZ sample (Appendix E) and US sample (Appendix F).

Table 8. Mean NZ sample ratings for each independent variable on each dependent measure.

Dependent Variable:	Restriction	Own Country	Other Country
Type			
Goods	4.72**	4.13*	3.29***
Workers	4.34	3.80	4.29
Availability			
Yes	5.53***	5.21***	3.84
No	3.53	2.71	3.74
Reciprocated			
Yes	4.08***	3.63***	3.59***
No	4.98	4.30	3.98
Wages			
High	4.31***	3.81***	3.70
Low	4.74	4.12	3.88
Overall Mean	4.53	3.96	3.79

Notes: 1. All dependent variable scales ranged from 1 (strongly pro-trade) to 9 (strongly anti-trade; see Method for captions); 2. Main effects significant if indicated by * at .05 level, ** at .01 level, or *** at .001 level.

Table 9. Mean US sample ratings for each independent variable on each dependent measure.

Dependent Variable:	Restriction	Own Country	Other Country
Type			
Goods	4.46	4.10	3.94*
Workers	4.55	4.20	4.35
Availability			
Yes	4.98***	4.81***	4.31
No	4.03	3.50	3.98
Reciprocated			
Yes	4.43	4.06	4.07
No	4.58	4.24	4.22
Wages			
High	4.38	4.03*	4.11
Low	4.63	4.28	4.18
Overall Mean	4.50	4.15	4.15

Notes: 1. All dependent variable scales ranged from 1 (strongly pro-trade) to 9 (strongly anti-trade; see Method for captions); 2. Main effects significant if indicated by * at .05 level; ** at .01 level; or *** at .001 level.

3.4. Discussion

3.4.1. Summary

Again, the overall neutrality and large standard deviations in responses from this experiment indicates a lack of certainty, or perhaps ambivalence, around the issue of trade. This experiment replicated the finding from the first experiment that respondents favour

much greater restrictions when imports are already available domestically. As expected, greater restriction was also favoured when the other country did not reciprocate such trade. This further supports the findings of Baron and Kemp (2004), and suggests a consideration of fairness in international trade situations, despite the contrary recommendation of the economist. This appears to be one verified source of the disharmony in opinion between laypeople and economists. The results in this experiment also replicated Kemp's (2008) finding that laypeople are averse to importing goods from low-wage countries. Further suggested here is that this finding does not translate to a preference for restrictions on immigrant worker from low-wage countries. Within the NZ sample in this experiment, it was found that respondents believed that a low-wage country would benefit more from emigrating workers than exporting goods. This may be due to the previously suggested international altruism phenomenon as there is a perception of worker exploitation in low-wage countries. However, overall, both samples perceived the other country to benefit more from exporting goods than workers emigrating; only the NZ sample perceived this to be contingent on workers receiving high wages. As predicted, restriction preferences were strongly correlated with perceived benefit to one's own country. Indeed, there were very few differences in significant effects between the two scales (the significant main effects in the NZ sample were identical between the two scales). However, no evidence for fixed-pie thinking was found, as, interestingly, a moderate positive correlation was found between restriction scores and perceived benefit to the other country, as well as a moderate positive correlation between perceived benefit to one's own country and perceived benefit to the other country. This indicates that respondents saw some mutual benefit within the scenarios presented in the questionnaire. A strong correlation was also found between restriction preferences for imported goods and workers. This was especially strong in the US, where respondents made very little distinction between goods and workers. Lastly, the overall mean restriction score

was higher than the perceived benefits to either country, suggesting that people are better able to recognise that trade is a mutually beneficial activity than they are able to support the minimisation of restrictions on it. This shows that people consider more than the interests of their country when forming trade attitudes, as their restriction preferences were higher than the perceived effect on their country would warrant. This suggests that other salient concerns, such the ones explored in this thesis, generate an opposition to free trade independent of any perceived effect on their country.

3.4.2. Sample Differences and Biases

While sample was found to have no main effect, it was found to interact with several other independent variables. Making inferences from these differences is difficult, as the samples varied not only nationality, but had vast differences in age, gender ratio, and the proportion of students. Thus this variable has been referred to as “sample” rather than “nationality”, as the NZ sample is an average of ten years younger, has a higher proportion of females and students, and was recruited through social media. Of the between-samples differences, the most striking is the NZ sample’s preference for immigrant workers over imported goods. This was also found in the first experiment, although the difference in that case was not statistically significant. The implication from this finding is that some combination of a younger sample, more students, and national differences between New Zealand and the US produces a preference for immigrant workers over imported goods. This is contrary to predictions based on previous literature. Accounting for this, other research has shown that education level and an exposure to pro-trade sentiment in universities increases pro-trade attitudes (Hainmueller & Hiscox, 2006; Mansfield & Mutz, 2009). The same has been found with immigration attitudes. Hainmueller and Hiscox (2007) found that those with higher education were less racist, placed greater emphasis on cultural diversity, and

subsequently were more likely to favour immigration than those less educated; differences in cultural values and beliefs were determined to account for 65% of the effect of education on immigration attitudes. Contrary to what economic models of self-interest would predict, this was unaffected by the skill-level of the immigrants or whether or not respondents were in the labour force competing for jobs. This suggests that once pro-immigrant attitudes are developed through cultural beliefs and values, they are not easily repealed by concerns of self-interest within the labour market. This makes university-educated individuals a unique group on this issue.

In general, people may tend to be not only anti-immigration, but also prefer high-skilled immigrants to low-skilled ones (Facchini & Mayda, 2012; Helbling & Kriesi, 2014; In the present thesis, it was found that respondents actually favoured immigrant workers from low-wage over high-wage countries, although the difference was small; Saxenian, 2002). Or, as predicted by economic models, skilled people may tend to favour immigration when they and their fellow native citizens are more skilled than the immigrants (e.g. Hanson, Scheve, & Slaughter, 2005; Mayda, 2006). Across populations, immigration attitudes appear extremely heterogeneous and subject influence by sociotropic concerns and economic factors. The discussed result from the present experiment suggests that the influence of education and exposure to anti-restriction preferences are more pronounced for immigration than trade in goods. This result may be also be related to the age and gender imbalances in the sample. Age has been shown across surveys such as the European Social Survey (ESS; Heath et al., 2016) and Pew Research Center polls (e.g. 2016) to negatively predict pro-immigration attitudes. Data from the ESS showed no significant difference between male and female respondents on immigration attitudes, while females tend to be more protectionist when considering trade in goods. The NZ sample was biased toward females, which may have also contributed to the preference for immigrants over goods.

Lastly, it is noteworthy that only the US sample made a significant distinction between goods and workers in terms of reciprocity. The NZ sample favoured all trade that was reciprocated by the other country. However, the US sample only considered reciprocation of benefit to the US when they were importing goods. They perceived the US to benefit more when trade in goods were reciprocated, but not worker migration. Preferring a means to export goods over no such means makes economic sense, however the pros and cons of emigration are more ambiguous, with the negatives generally considered to outweigh the positives, both anecdotally and empirically (see Docquier, Ozden, & Peri, 2014; Docquier, Özden, & Peri, 2010). The NZ sample evidently perceived a benefit in reciprocated migration (i.e. emigration) that the US sample did not. The US results appear more consistent with economic rationality. It is possible that respondents in the NZ sample were more affected by considerations of fairness, which is consistent with other results obtained from that sample (i.e. their very large main effect size for reciprocity [see Appendix E] and a reluctance to import goods from low-wage countries).

3.4.3. Students Prefer Immigrants From Low-Wage Countries

Our results may also have provided some support for the self-interest models. When looked at across both the NZ and US samples, there was an interaction between studentship, type, and wage. When scenarios proposed immigrant workers, students favoured greater restrictions on workers from high-wage countries than low-wage countries; non-students favoured greater restrictions on immigrants from low-wage countries than high-wage countries. This finding is somewhat incongruent with Hainmueller and Hiscox (2007), as according to their conclusions those with higher education should tend to favour immigration regardless of the characteristics of the immigrants. It is more consistent with the line of research that emphasises the effect of self-interest and labour-market forces in determining

immigration attitudes (e.g. Hanson et al., 2005; Mayda, 2006). However, this interpretation does require the non-students to be in labour-market competition with the immigrants from low-wage countries. This finding could also be explained in terms of students being more open to cultural diversity than non-students.

3.4.4. US Students

Despite small statistical power, several differences were detected within the US sample between students and non-students. Based on these results, the attitude of US students toward both trade and immigration could be characterised as very liberal. They favoured significantly less restriction overall than their non-student counterparts, and their views did not change even when the scenario proposed goods or workers that were already available domestically. In this regard, of all the subgroups analysed in this thesis, US students most closely resemble the economist in terms of their views on trade and immigration. The NZ sample did not demonstrate these differences between students and non-students. However, it is difficult to infer much from this without knowing the educational history of the respondents.

3.4.5. Females Reject Goods From Low-Wage Countries

Notable gender differences were again found in this experiment. For the NZ sample, the gender split-plot revealed that males not only favoured less restrictions for both trade and immigration, but that the effect of type on restriction preferences was present only for females [see Appendix E]. This supports the conclusion that the gender imbalance of the sample contributed heavily to the unique finding that immigrant workers were preferred to imported goods. In both samples, females demonstrated an aversion to importing goods from low-wage countries. This is consistent with the finding from the first experiment that females

favoured restrictions on importing low-quality goods. The quality of goods and the wages of the workers who make them have been shown to be related, and it is apparent from the results here that females recognise this.

4. General Discussion

Taken together, the results from these experiments provide some encouraging bases for more specified research.

4.1. *Main Effects*

The consistent finding that respondents prefer immigrant workers and imported goods that are not available or produced in one's own country is unsurprising. In the matter of trade, it suggests that laypeople consider factors associated with production, whereas the primary preoccupation of the economist is consumption. The same is true of the quality of imports and immigrant workers, as found in Experiment One. Consistent with Kemp (2008), a main effect was also found for wage, as respondents generally preferred trade with high-wage countries. Following Baron and Kemp (2004), respondents also preferred trade that was reciprocated by the other country. This included the benefit to other country measure, indicating that respondents perceived a mutual benefit in reciprocal trade. The main effect of trade type was less clear-cut, and is best discussed in terms of its interactions.

4.2. *Type: Capital Investment and Imported Goods*

In Experiment One, restriction preferences for trade in goods and foreign investment were found to correlate very strongly; for the NZ sample, preferences were almost indistinguishable between the two types (see Appendix B). The scenarios used for investment in this experiment proposed a foreign firm building a factory that produces goods to sell locally. This should not be seen as representative of all foreign investment, as the polls cited in Chapter One suggest that people tend to favour the investment scenario used in this experiment (i.e. a company builds their own factory) much more than a foreign entity

purchasing a local business, for example. It does, however, show that people are not averse to the principle of foreign investment any more than they are for importing goods. This has some implications for policy, particularly in NZ. The new NZ government has banned foreign home ownership, but signed an amended TPPA eliminating trade tariffs between NZ and other Pacific Rim nations. This is despite the majority of NZ people being against the TPPA (Bannan, 2017). Little credible data exists on attitudes toward foreign home ownership in NZ, but anecdotally it tends to be viewed negatively. While the results from the present thesis suggest that the voting public would have policy makers treat imported goods and foreign investment similarly, this is clearly not the reality in NZ. Applying the present findings, it must be concluded here that NZ policy makers have judged the benefit of the TPPA to cover the cost of breaking with public opinion (along with any other costs), but the benefit of foreign housing investment to not be worth the cost of breaking with public opinion on this issue (again, along with any others costs). If they were to carry similar costs and benefits, it would not be advised to make distinctions in terms of how they are handled in policy.

4.3. Type: Goods Versus Workers

On the issue of imported goods versus immigrant workers, our results were mixed in terms of preference. Overall, preferences toward goods and workers were quite similar, with a moderate correlation found in Experiment One, and a strong correlation found in Experiment Two. The relationships were much stronger than previously found (Mayda, 2007). This suggests that while there were some significant effects between imported goods and immigrant workers, within the context of these experiments, there were some common underlying motivators of preferences. It may be that they share some common threats and benefits. For example, it has been discussed that immigrants pose realistic and symbolic

threats, and it may be that imported goods present these or similar threats. This is particularly true for the US sample in Experiment Two, who made very little distinction between the two trade types. While laypeople are generally more sympathetic toward trade than immigration, the difference in the US appears to be much smaller. In terms of policy, the US has recently taken a protectionist stance on both immigration and imported goods. Recently introduced restrictions prohibit many foreigners from entering the US, and tariffs have been introduced on many imports, such as steel and aluminium. While the results in Experiment Two suggest that US laypeople believe that imported goods and immigrant workers should be treated similarly, the neutrality of overall restriction preferences suggests that they would not tend to favour the extreme protectionist policies currently being implemented.

The NZ sample in Experiment Two showed an unexpected preference for immigrant workers over imported goods. This was attributed to a number of sample idiosyncrasies that rendered it non-representative. The age, gender bias, and number of students in the sample likely contributed to this effect. Results from this sample are still valid, but they should not be interpreted as representative of overall lay attitudes toward trade, rather attitudes of a specific demographic.

Discussed below are variables that affected dependent measures differently depending on whether goods or workers were considered.

4.3.1. High- Versus Low-Wage Countries

This research replicated the finding from Kemp (2008) that laypeople favour restricting the import of goods from low-wage countries. However, when immigrant workers were considered instead of goods, the results indicated that preferences may differ. The NZ sample in Experiment Two favoured significantly greater restriction on goods from low-wage countries than workers. This is consistent with Kemp's (2008) conclusion that people may

perceive workers in low-wage countries to be subjects to exploitation. If this were the case, importing goods from such countries would facilitate exploitation, while accepting immigrants from such countries would help some escape it. This same result was found among current students from both countries, but not the US sample overall. The implication here is that students and younger people may be less parochial in their altruistic thinking, and consider the situation of workers abroad. Of course, a perception of exploitation does not necessarily mean exploitation exists, but it nonetheless contributes to the measured attitudes. The US sample did not distinguish between goods and workers from low-wage countries in their preferences, consistently favouring greater restriction for both compared to imports and immigrants from high-wage countries, as predicted by previous research. In this sense, the US sample could be considered more economically rational.

4.3.2. Reciprocation

The NZ sample in Experiment Two consistently favoured reciprocated trade regardless of whether imported goods or immigrant workers were proposed (i.e. importation and immigration should both be returned with exportation and emigration). However, the US sample perceived no benefit to their country in reciprocal migration. In fact, they perceived slightly more benefit in unreciprocated immigration over scenarios that included emigration. However, this effect did not show up on the restriction scale, which suggests that the US sample would not restrict immigrant workers on the basis of losing US workers in turn, but they do see the benefit in keeping the US workers. The NZ sample heavily favoured reciprocated trade regardless of its nature. There are at least two plausible explanations for this result. Firstly, as suggested in Chapter Three, it may be that perceptions of fairness in trade were a stronger driver of NZ attitudes than US attitudes. Secondly, it may reflect some differences between the countries. The US is a much larger country with more diversity in

opportunity. In searching for employment, for example, not many US citizens would need to leave their country in order to find work in the employment area they wish. On the other hand, NZ is a very small country with less diversity. Having a preference for reciprocated migration may reflect concern around the narrow range of opportunity offered by a smaller country and economy. Thus, a means of exit would be reassuring in that sense.

4.3.3. Availability

In Experiment One, both samples were more affected by domestic availability when immigrant workers were proposed. When imported goods were proposed, it was less important whether or not such goods were produced and already available in the respondent's country. In our first experiment, domestic availability had a greater effect on restriction preference when the scenario proposed workers (i.e. market competition from foreign workers was viewed less desirable than market competition from foreign goods). It may be that the realistic threats posed by immigrants were greater than those from imports, as immigrant workers evoked higher restriction preferences than imported goods when production would be compromised by competition. The large main effect of availability indicates that laypeople give serious consideration to local production in considering trade attitudes, and the larger effect for immigrant workers suggests that laypeople perceive them as more of a threat to local production than imported goods.

This result was not replicated in the second experiment. This could be attributed to the design of questionnaire. The second questionnaire omitted the sentence stressing market competition from imported goods and immigrant workers from each relevant scenario. Instead, it was given in the general introduction that imports and immigrants would produce competition, but not restated in each relevant scenario. It is possible that the result obtained in the first experiment was partly due to a negative framing that emphasised market

competition, while the second experiment did not elicit this framing effect as the respondents only read the sentence once in the general introduction. One sentence within an otherwise neutral introduction would not be expected to produce a framing effect, as other research has only produced small effects with introductions primarily dedicated to negative framing of stimuli, especially among educated people (e.g. Ardanaz et al., 2013; Hiscox, 2006). It could also be suggested that assigning each proposed immigrant a demographic variable (i.e. their income: high- or low-wage) humanised them, causing them to be viewed as people more so than the subject of an economic problem. Regardless, the inability to replicate this finding with neutral stimuli casts doubt over robustness of the original finding, suggesting that it may be evidence of a framing effect rather than an inherent pathway for attitude formation. The implication here is that immigration and trade issues may be unstable. While immigration benefits societies overall, people's views are malleable and subject to salient economic factors and sociotropic concerns which are easily manipulated.

4.4. Gender Differences

Overall, the present research tended to support previous findings that females are more protectionist in the matter of trade. Further, the findings in this thesis provide some explanation for this. Females favoured greater restriction on imported goods than migrant workers, but particularly goods of low quality, and goods from low-wage countries. This indicates that a perception of inferior goods may contribute to female aversion to international trade. It was also suggested that, as with the overall NZ sample, international altruism may have contributed to an aversion to importing goods from low-wage countries, as females tend to value altruism more than males. Previous research has argued that females' aversion to trade could be best explained by their relative lack of exposure to economic ideas and theory, rather than a gender difference in values and beliefs (Burgoon & Hiscox, 2004).

The present research does not refute this. However, it may be suggested from our results that values do contribute in some way to females favouring greater restrictions on trade.

4.5. Limitations

The sample biases discussed above limit the external validity of some conclusions drawn from these findings. The NZ samples from both experiments were significantly younger than their corresponding US sample. The NZ samples gathered from social media had median ages of 24 and 22 years old, respectively. The NZ sample in Experiment Two was also comprised mostly of current students. Together, these biases severely limit the general conclusions that can be drawn from these results, as young people and students tend to hold more liberal and cosmopolitan attitudes than the general population (Hainmueller & Hiscox, 2006; Heath et al., 2016; Mansfield & Mutz, 2009).

It also must be considered that the recruitment methods between the samples in both experiments was not consistent. For both experiments, the US sample was recruited through Crowdfunder, while the NZ sample for both experiments was obtained through social media and email. As Crowdfunder is a tool dedicated to data collection and analysis, participants sourced from it are unique in that they may have some sort of interest or awareness of data analytics; one would not expect the layperson to patronise such a site frequently. More demographic variables, such as education history and occupational area, should be gathered in future to better characterise samples gathered from potentially niche sources.

Many issues often arise with external validity in social science research (Green & Glasgow, 2006). In scenario experiments such as the two in this thesis, the scenarios given are only short hypothetical situations that can never capture the full picture. In this thesis, various variables relating to trade, investment, and immigration were manipulated in order to evoke different attitudes toward the respective scenarios. However, such scenarios can only

account for a small portion of the reality of trade and immigration. For example, the TPPA is a multilateral free trade deal between 11 countries, each with different comparative advantages, politics, interests, cultures, attitudes, etc. In reality, these issues are broad and extremely dynamic, and individuals will consider a wide variety of factors when forming opinions.

4.6. Applications and Future Research

Several findings from these experiments are novel and provide bases for future research, as well as some suggestions for policy makers. Firstly, it is clear laypeople's views on trade are partly formed through various non-economic psychological phenomena, such as altruism and perceived fairness. These experiments have provided further evidence that lay attitudes are extremely malleable depending on such perceptions. Policy makers would be advised to consider how they can evoke such perceptions in order to generate support for trade. Laypeople understand that trade benefits their country, but tend to oppose it when it is presented to them. A successful framing of trade as (a) fair, (b) non-exploitative, (c) high quality, and (d) non-detrimental to local production would be expected to greatly increase positive public attitudes toward trade.

It was found that people made very little distinction between imported goods and foreign investment within those scenarios. This is seldom reflected in policy, certainly not currently in either the US or NZ. The US has recently adopted several protectionist trade, but remains the world's leading recipient of foreign capital investment, while the number of Americans employed by foreign companies is rising (World Bank, 2016; Pew Research Center, 2017a). As discussed earlier in this chapter, NZ policy has recently taken the opposite approach in restricting foreign investment but signing an unpopular free trade agreement. It may be useful for future researchers to build on the findings from the present thesis within the

context of these current global issues. The result obtained in Experiment One suggests that people do not distinguish between imports and foreign investment within abstract scenarios, but further research should apply this to real-world contexts, as scenario experiments are limited in their external validity.

The results in this thesis also demand further investigation of the differences in attitudes toward imports and immigration. Much higher correlations between attitudes toward imports and immigration were found compared to previous research (Mayda, 2007). This may be because the scenarios presented here didn't evoke the threats (symbolic and realistic) that would usually be associated with immigration. It may be useful to consider larger between-subjects designs in future, as treating immigrants with the same variables as imported goods does not emphasise some threats that would typically be associated with them (e.g. concerns around cultural assimilation, crime, use of national resources etc.). As above, there is also room for contextualised real-world research, particularly in the US, where the current protectionist and anti-immigrant establishment has further polarised a traditionally partisan nation (Pew Research Center, 2017b). Understanding more about the similarities and differences between these attitudes would provide valuable insights for policy makers and political candidates in future.

Kemp's (2008) finding that laypeople do not support imports from low-wage countries was replicated in this thesis. However, it did not translate to an aversion to workers from low-wage countries. Suggested here is that people perceive workers in low-wage countries to be subject to exploitation, and are willing to allow them to immigrate into their country. This suggested form of international altruism could be further explored, as well as how this translates to for domestic low-wage workers, as previous research has shown that people are more willing to protect workers in low-skilled industries than high-skills industries (Rho & Tomz, 2012).

Lastly, the present research has affirmed the importance of considering gender on trade issues, and also provided some novel insight. It has previously been suggested that the effect of gender on trade attitudes may be a result of varying exposure to economic ideas. Further, our results indicate that females are more affected by import quality, and may sympathise with workers in low-wage countries. Further research is needed to tie these theories together.

4.7. Conclusion

The experiments carried out in this thesis have furthered the development of a psychological approach to the issue of international trade attitudes. Laypeople have tended to have largely ambivalent attitudes toward trade, investment, and immigration. Within these experiments, respondents made little distinction between imported goods and foreign investment. Further, people held surprisingly similar attitudes toward imported goods and immigrant workers. It is suggested that attitudes toward trade and immigration are more affected by perceived threats to national interests, such as local production, than by the form that threat takes (i.e. imports or immigrants). Other factors, such as perceived fairness and altruism, have also been suggested to significantly contribute to trade and immigration attitudes. These experiments cover a wide range of economic and psychological phenomena, and provide empirical effects for policy makers and future researchers to further break down according to the suggestions made.

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Appendix A: Experiment One Questionnaire

This questionnaire is about attitudes toward trade between different countries. The research is being conducted by Nathan Monk from the Psychology Department of the University of Canterbury (nathan.monk@pg.canterbury.ac.nz).

We should like to assure you that your participation in this project will remain anonymous.

The questionnaire presents you with 12 brief scenarios with a preference scale after each. The questions ask what you feel should be done about the importation of goods, workers, or investment from a foreign country. At one extreme you can decide that importations should occur without any restriction and without paying any tariff (a tariff is a special tax on imported goods). At the other extreme you can decide that importation should not be allowed at all. In between, you might think that only some importations should be allowed and/or the importers of the goods should pay a tariff (which will raise the price of the imported goods and make people less likely to buy them).

In these scenarios, you are asked to consider three issues:

1. The type of trade (goods, workers, or investment).
2. The current availability of that type of good/worker/investment in New Zealand.
3. The quality of the goods/workers/investment.

NB: In the scenarios, the price of goods produced by foreign firms is always given as lower than those produced by New Zealand firms.

1. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently produced in New Zealand. If people buy the foreign goods, a New Zealand firm will lose business.

The goods are of a higher quality than those produced in New Zealand, and will be sold for a slightly lower price.

1	2	3	4	5	6	7	8	9
Allow imports with no tariffs or restrictions			Allow some imports with restrictions			Allow no imports at all		

2. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently not produced in New Zealand.

The goods are of a high quality.

1	2	3	4	5	6	7	8	9
Allow imports with no tariffs or restrictions			Allow some imports with restrictions			Allow no imports at all		

3. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently produced in New Zealand. If people buy the foreign goods, a New Zealand firm will lose business.

The goods are of a lower quality than those produced in New Zealand, and will be sold for a slightly lower price.

1	2	3	4	5	6	7	8	9
Allow imports with no tariffs or restrictions			Allow some imports with restrictions			Allow no imports at all		

4. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently not produced in New Zealand.

The goods are of a low quality.

1	2	3	4	5	6	7	8	9
Allow imports with no tariffs or restrictions			Allow some imports with restrictions			Allow no imports at all		

5. Workers from a foreign country wish to live and work in New Zealand.

The workers are highly qualified.

Local workers of this type are already highly available in New Zealand. If the foreign workers are allowed to come to New Zealand, local workers will face increased competition for jobs.

1	2	3	4	5	6	7	8	9
Allow workers with no restrictions			Allow some workers with restrictions			Allow no workers at all		

6. Workers from a foreign country wish to live and work in New Zealand.

The workers are highly qualified.

Local workers of this type are not readily available in New Zealand.

1	2	3	4	5	6	7	8	9
Allow workers with no restrictions			Allow some workers with restrictions			Allow no workers at all		

7. Workers from a foreign country wish to live and work in New Zealand.

The workers have little qualifications.

Local workers of this type are already highly available in New Zealand. If the foreign workers are allowed to come to New Zealand, local workers will face increased competition for jobs.

1	2	3	4	5	6	7	8	9
Allow workers with no restrictions			Allow some workers with restrictions			Allow no workers at all		

8. Workers from a foreign country wish to live and work in New Zealand.

The workers have little qualifications.

Local workers of this type are not readily available in New Zealand.

1	2	3	4	5	6	7	8	9
Allow workers with no restrictions			Allow some workers with restrictions			Allow no workers at all		

9. A foreign firm wishes to invest in New Zealand. It intends to build a factory in New Zealand to make consumer goods to sell in New Zealand. The factory will create local jobs.

Goods of this type are currently produced in New Zealand by a New Zealand-owned firm. If people buy from the foreign firm, the New Zealand-owned firm will lose business.

The goods will be of a higher quality than those produced by the New Zealand-owned firm, and will be sold for a slightly lower price.

1	2	3	4	5	6	7	8	9
Allow investment with no restrictions			Allow some investment with restrictions			Allow no investment at all		

10. A foreign firm wishes to invest in New Zealand. It intends to build a factory in New Zealand to make consumer goods to sell in New Zealand. The factory will create local jobs.

Goods of this type are currently not produced in New Zealand.

The goods will be high quality.

1	2	3	4	5	6	7	8	9
Allow investment with no restrictions			Allow some investment with restrictions			Allow no investment at all		

11. A foreign firm wishes to invest in New Zealand. It intends to build a factory in New Zealand to make consumer goods to sell in New Zealand. The factory will create local jobs.

Goods of this type are currently produced in New Zealand by a New Zealand-owned firm. If people buy from the foreign firm, the New Zealand-owned firm will lose business.

The goods will be of a lower quality than those produced by the New Zealand-owned firm, and will be sold for a slightly lower price.

1	2	3	4	5	6	7	8	9
Allow investment with no restrictions			Allow some investment with restrictions			Allow no investment at all		

12. A foreign firm wishes to invest in New Zealand. It intends to build a factory in New Zealand to make consumer goods to sell in New Zealand. The factory will create local jobs.

Goods of this type are currently not produced in New Zealand.

The goods will be low quality.

1	2	3	4	5	6	7	8	9
Allow investment with no restrictions			Allow some investment with restrictions			Allow no investment at all		

Appendix B: Excluded Independent Sample Analyses – Experiment One, NZ Sample

NZ Sample

Over all 12 scenarios in the questionnaire, the mean NZ restriction score was 4.73 ($SD = 2.43$).

The key results for the NZ sample were tested in a 3 X 2 X 2 within-subjects analysis of variance. Respondents favoured greater restriction on trade that was of low quality ($Mean = 5.64$, $SD = 2.30$) than high quality ($Mean = 3.82$, $SD = 2.20$; $F[1, 37] = 93.1$, $p < .001$). Respondents also supported greater restriction on trade when the proposed import was available or produced in NZ ($Mean = 5.71$, $SD = 2.22$) than when it was not ($Mean = 3.75$, $SD = 2.23$; $F[1, 37] = 107.6$, $p < .001$). The type of trade had no main effect on respondents' preferences, but there was an interaction effect between type and availability, as respondents were more affected by the current availability in scenarios that proposed immigrant workers than those that proposed receiving goods or investment (Figure A; $F[2, 74] = 12.04$, $p < .001$). All other results from the repeated measures ANOVA were statistically insignificant ($p > .05$).

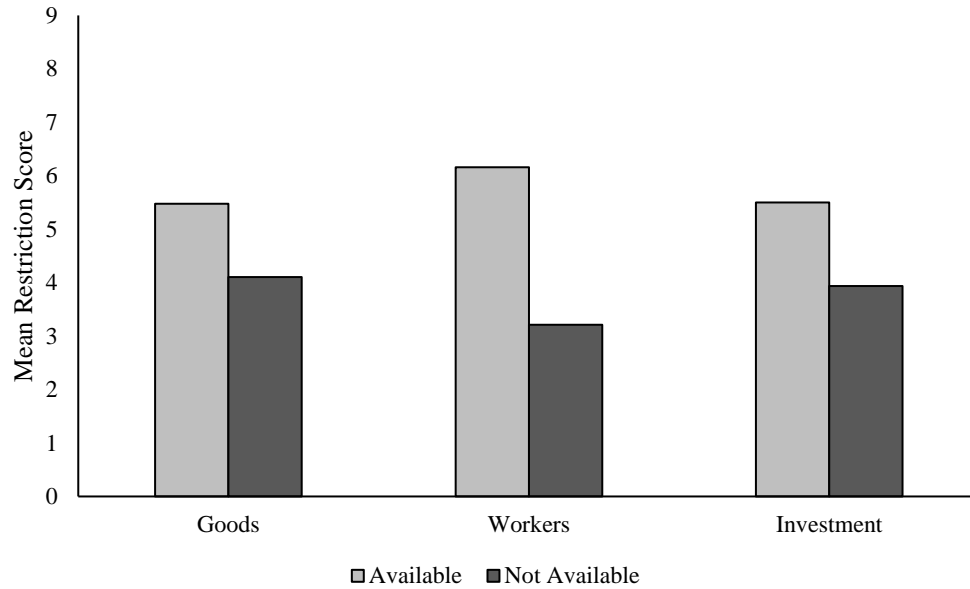


Figure A. Mean restriction scores for NZ sample by trade type and availability.

Gender Split-Plot

A split-plot ANOVA was run on the NZ sample with gender (male or female) added as a fourth categorical variable. Gender was found to have no main effect on restriction ($p > .05$). An interaction between gender and quality was found ($F[1, 14] = 6.25, p = .025$), as females favoured greater restriction ($Mean = 6.27, SD = 1.87$) on low quality imports than males ($Mean = 5.23, SD = 2.47$). Further, female respondents' aversion to low quality imports as pronounced when the trade was in goods ($Mean = 6.83, SD = 1.39$) and investment ($Mean = 6.43, SD = 1.50$) rather than workers ($Mean = 5.53, SD = 2.37; F[2, 28] = 4.62, p = .018$).

Table A. Pearson correlations between trade types for NZ sample, averaged over each respondent's four responses for each type.

	1.	2.	3.
5. Good		.36*	.92***
6. Worker	.36*		.35*
7. Investment	.92***	.35*	

Notes: 1. All scales ordered so that a positive direction indicates an anti-trade attitude; 2.

All correlations significant at * .05 level or ***.001 level.

Appendix C: Excluded Independent Sample Analyses – Experiment One, US Sample

US Sample

Over all 12 scenarios in the questionnaire, the mean US restriction score was 4.85 ($SD = 2.18$).

The key results for the US sample were tested in a 3 X 2 X 2 within-subjects analysis of variance. US respondents favoured greater restriction for imports of a low quality ($Mean = 5.47$, $SD = 2.12$) than high quality ($Mean = 4.23$, $SD = 2.06$; $F[1, 57] = 27.4$, $p < .001$). US respondents also supported greater restrictions for imports that were already available ($Mean = 5.15$, $SD = 2.20$) than those that were not ($Mean = 4.55$, $SD = 2.13$; $F[1, 57] = 11.6$, $p = .001$). The type of trade was also found to have a significant main effect ($F[2, 114] = 5.25$, $p = .007$), as respondents favoured less restriction for trade in goods ($Mean = 4.72$, $SD = 2.06$) and investment ($Mean = 4.67$, $SD = 2.18$) than workers ($Mean = 5.15$, $SD = 2.28$). A significant interaction was again found between type and availability, as restriction scores were more affected by availability when the scenario proposed immigrant workers (Figure B; $F[2, 114] = 6.98$, $p = .001$). All other results from the repeated measures ANOVA were statistically insignificant ($p > .05$).

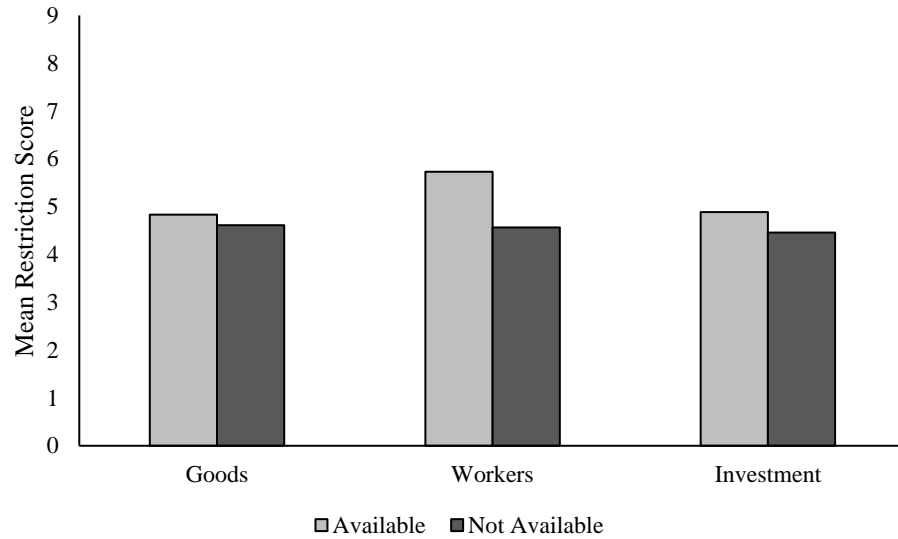


Figure B. Mean restriction scores for US sample by trade type and availability.

Gender Split-Plot

As for the NZ sample, split-plot ANOVA was on the US sample with gender (male or female) added as a fourth categorical variable. No main effect of gender was detected on restriction ($p > .05$). As reported above, the availability variable was found to have a larger effect on restriction when the trade was in workers; this interaction was stronger in females than males (Table B; $F[2, 42] = 4.01, p = .026$). Females further favoured greater restriction ($Mean = 6.05, SD = 2.12$) on low quality imports than males ($Mean = 5.11, SD = 2.05; F[1, 21] = 9.33, p = .006$).

Table B. Mean worker restriction scores for males and females at different levels of availability.

	Male	Female
Available	5.36	6.34

Not Available	4.78	4.23
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Note: Restriction scores range from 1 (allow trade with no restrictions) to 9 (allow no trade at all).

Table C. Pearson correlations between trade types for US sample, averaged over each respondent's four responses for each type.

	1.	2.	3.
8. Good		.54***	.76***
9. Worker	.54***		.54***
10. Investment	.76***	.54***	

Notes: 1. All scales ordered so that a positive direction indicates an anti-trade attitude; 2.

All correlations significant at ***.001 level.

Appendix D: Experiment Two Questionnaire

This questionnaire is about attitudes toward trade between different countries. The research is being conducted by Nathan Monk from the Psychology Department of the University of Canterbury (nathan.monk@pg.canterbury.ac.nz).

We should like to assure you that your participation in this project will remain anonymous.

The questionnaire presents you with 16 brief scenarios, each of which is followed by three questions. Each scenario outlines a prospective trade deal with a foreign country.

In these scenarios, you are asked to consider four issues:

1. The type of import (either [a] consumer goods, or [b] migrant workers).
2. The current availability of that type of good or worker in New Zealand. (If the type of good or worker is currently available in New Zealand, local firms or workers will face increased competition from imports.)
3. Whether the other country reciprocates such trade (that is, whether or not New Zealand exports similar goods/workers to that country).
4. Whether the foreign country pays high or low wages to its workers.

Each scenario will vary these issues in a different way, and you will be asked to respond on three scales for each.

1. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently produced in New Zealand by a New Zealand-owned firm.

The foreign firm is based in a country which imports freely from New Zealand.

The foreign firm is based in a country that pays high wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

1. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently produced in New Zealand by a New Zealand-owned firm.

The foreign firm is based in a country which imports freely from New Zealand.

The foreign firm is based in a country that pays low wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

2. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently produced in New Zealand by a New Zealand-owned firm.

The foreign firm is based in a country which does not import freely from New Zealand.

The foreign firm is based in a country that pays high wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

3. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are currently produced in New Zealand by a New Zealand-owned firm.

The foreign firm is based in a country which does not import freely from New Zealand.

The foreign firm is based in a country that pays low wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

4. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are not currently produced in New Zealand.

The foreign firm is based in a country which imports freely from New Zealand.

The foreign firm is based in a country that pays high wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

5. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are not currently produced in New Zealand.

The foreign firm is based in a country which imports freely from New Zealand.

The foreign firm is based in a country that pays low wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

6. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are not currently produced in New Zealand.

The foreign firm is based in a country which does not import freely from New Zealand.

The foreign firm is based in a country that pays high wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

7. A foreign firm wishes to import consumer goods into New Zealand.

Goods of this type are not currently produced in New Zealand.

The foreign firm is based in a country which does not import freely from New Zealand.

The foreign firm is based in a country that pays low wages to its workers.

How do you feel about importing these goods?

1	2	3	4	5	6	7	8	9
Allow imports with no restrictions			Allow some imports with restrictions			Allow no imports at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

8. Workers from a foreign country wish to live and work in New Zealand.

Local workers of this type are readily available in New Zealand.

The workers come from a country that freely imports migrant workers from New Zealand.

The workers are from a country that pays high wages to its workers.

How do you feel about importing these workers?

1	2	3	4	5	6	7	8	9
Allow immigrants with no restrictions			Allow some immigrants with restrictions			Allow no immigrants at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

9. Workers from a foreign country wish to live and work in New Zealand.

Local workers of this type are readily available in New Zealand.

The workers come from a country that freely imports migrant workers from New Zealand.

The workers are from a country that pays low wages to its workers.

How do you feel about importing these workers?

1	2	3	4	5	6	7	8	9
Allow immigrants with no restrictions			Allow some immigrants with restrictions			Allow no immigrants at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

10. Workers from a foreign country wish to live and work in New Zealand.

Local workers of this type are readily available in New Zealand.

The workers come from a country that does not freely import migrant workers from New Zealand.

The workers are from a country that pays high wages to its workers.

How do you feel about importing these workers?

1	2	3	4	5	6	7	8	9
Allow immigrants with no restrictions			Allow some immigrants with restrictions			Allow no immigrants at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

11. Workers from a foreign country wish to live and work in New Zealand.

Local workers of this type are readily available in New Zealand.

The workers come from a country that does not freely import migrant workers from New Zealand.

The workers are from a country that pays low wages to its workers.

How do you feel about importing these workers?

1	2	3	4	5	6	7	8	9
Allow immigrants with no restrictions			Allow some immigrants with restrictions			Allow no immigrants at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

12. Workers from a foreign country wish to live and work in New Zealand.

Local workers of this type are not readily available in New Zealand.

The workers come from a country that freely imports migrant workers from New Zealand.

The workers are from a country that pays high wages to its workers.

How do you feel about importing these workers?

1	2	3	4	5	6	7	8	9
Allow immigrants with no restrictions			Allow some immigrants with restrictions			Allow no immigrants at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

13. Workers from a foreign country wish to live and work in New Zealand.

Local workers of this type are not readily available in New Zealand.

The workers come from a country that freely imports migrant workers from New Zealand.

The workers are from a country that pays low wages to its workers.

How do you feel about importing these workers?

1	2	3	4	5	6	7	8	9
Allow immigrants with no restrictions			Allow some immigrants with restrictions			Allow no immigrants at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

14. Workers from a foreign country wish to live and work in New Zealand.

Local workers of this type are not readily available in New Zealand.

The workers come from a country that does not freely import migrant workers from New Zealand.

The workers are from a country that pays high wages to its workers.

How do you feel about importing these workers?

1	2	3	4	5	6	7	8	9
Allow immigrants with no restrictions			Allow some immigrants with restrictions			Allow no immigrants at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

15. Workers from a foreign country wish to live and work in New Zealand.

Local workers of this type are not readily available in New Zealand.

The workers come from a country that does not freely import migrant workers from New Zealand.

The workers are from a country that pays low wages to its workers.

How do you feel about importing these workers?

1	2	3	4	5	6	7	8	9
Allow immigrants with no restrictions			Allow some immigrants with restrictions			Allow no immigrants at all		

Would this trade benefit your country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Would this trade benefit the other country as a whole?

1	2	3	4	5	6	7	8	9
Certainly yes			Unsure			Certainly not		

Appendix E: Excluded Independent Sample Analyses – Experiment Two, NZ Sample

NZ Sample: Repeated Measures ANOVA

Over all 16 scenarios in the questionnaire, the mean restriction rating was 4.53 ($SD = 2.20$), the mean perceived benefit to respondents' own country scale was 3.56 ($SD = 2.31$), and the mean perceived benefit to the other country scale was 3.79 ($SD = 2.13$).

The key results for the NZ sample were tested on each dependent variable in a 2 X 2 X 2 X 2 within-subjects repeated measures analyses of variance.

Restriction

On the restriction scale, respondents favoured greater restriction for trade in goods rather than workers ($F[1, 82] = 8.34, p = .005$). Respondents strongly favoured greater restriction when the proposed import was currently available in ($F[1, 82] = 260.2, p < .001$). Further, respondents favoured greater restriction when the other country did not reciprocate such trade ($F[1, 82] = 64.4, p < .001$). Finally, respondents supported greater restriction on trade with countries that pay low wages to their workers ($F[1, 82] = 18.9, p < .001$). Two two-way interactions were also detected on the restriction scale: wage was found to interact with both trade type ($F[1, 82] = 44.9, p < .001$) and availability ($F[1, 82] = 8.74, p = .004$). Mean restriction ratings were more affected by whether the other country paid its workers high or low wages when trade was in goods rather than workers; respondents favoured greater restriction on goods from low-wage countries (Table D).

Table D. Mean NZ sample restriction ratings for trade with high- and low-wage countries in goods and workers.

	Goods	Workers

Wage			
	High	4.22	4.41
	Low	5.22	4.27

Note: Restriction scores range from 1 (allow trade with no restrictions) to 9 (allow no trade at all).

Benefit to Own Country

On the benefit to own country measure, respondents perceived a greater benefit to NZ when scenarios proposed immigrant workers rather than imported goods ($F[1, 82] = 6.23, p = .015$). A greater benefit was also perceived when imports were not currently available in NZ ($F[1, 82] = 255.7, p < .001$). Respondents also believed NZ would benefit more when the trade was reciprocated by the other country ($F[1, 82] = 37.5, p < .001$). Imports from a high-wage country were also perceived to be of greater benefit ($F[1, 82] = 13.3, p < .001$). On this scale, wage again produced two-way interactions with both type ($F[1, 82] = 5.54, p = .021$) and availability ($F[1, 82] = 4.46, p = .038$). It was evident that NZ respondents perceived little relative benefit to their country from importing goods from low-wage countries ($Mean = 4.38, SD = 2.31$) compared to goods from high-wage countries ($Mean = 3.87, SD = 2.26$) or immigrant workers from either high-wage ($Mean = 3.74, SD = 2.29$) or low-wage ($Mean = 3.86, SD = 2.31$) countries.

Benefit to Other Country

On the benefit to other country measure, respondents perceived a greater benefit to the other country when NZ imported goods over workers ($F[1, 82] = 41.6, p < .001$), and when the trade was reciprocated by the other country ($F[1, 82] = 12.5, p = .001$). Four two-way interactions were also detected on this scale: reciprocity was found to interact with both type

($F[1, 82] = 4.23, p = .043$) and availability ($F[1, 82] = 6.37, p = .014$), while wage was found to interact with both type ($F[1, 82] = 27.9, p < .001$) and availability ($F[1, 82] = 12.4, p = .001$). Notably, when the scenario proposed trade in goods, respondents perceived greater benefit to the other country if it paid its workers high wages ($Mean = 2.90, SD = 1.72$) than low wages ($Mean = 3.68, SD = 2.17$); however, when the scenario proposed worker migration, respondents perceived greater benefit to the other country when it paid its workers low wages ($Mean = 4.08, SD = 2.17$) than high wages ($Mean = 4.50, SD = 2.09$).

Correlations

A strong correlations was found between scores for the restriction and benefit to own country scale. Moderate correlations were found between the benefit to other country scale and the two others (Table E). Further, restriction scores for scenarios proposing goods and workers were found to correlate moderately ($r = .46, p < .001$) when each respondent's restrictions score were averaged across their eight responses for each type.

Table E. NZ correlations between the three dependent measures, averaged over all 16 of each respondent's responses on that scale.

	1.	2.	3.
1. Restriction		.76***	.45***
2. Own Country	.76***		.46***
3. Other	.45***	.46***	
Country			

Notes: 1. All scales ordered so that a positive direction indicates an anti-trade attitude; 2.

All correlations significant at ***.001 level.

Split-Plot Analyses

A split-plot ANOVA was run on the restriction measure with current student (yes or no) as fifth independent variable. No effects were detected ($p > .05$).

Gender

Split-plot ANOVAs were run on each measure with gender (male or female) added as a fifth independent variable. Gender was found to have a main effect on the restriction scale ($F[1, 38] = 7.82, p = .008$), as females consistently favoured greater restriction ($Mean = 4.82$) than males ($Mean = 4.20$). Gender also had a main effect on the benefit own country scale ($F[1, 38] = 6.99, p = .012$), as males perceived trade to have a greater overall benefit to NZ ($Mean = 3.64$) than females ($Mean = 4.25$).

On the restriction scale, gender was found to interact independently with type ($F[1, 38] = 4.89, p = .033$). Males favoured less restrictions on goods ($Mean = 4.21, SD = 2.22$) and workers ($Mean = 4.19, SD = 2.15$) than females did for either goods ($Mean = 5.17, SD = 2.23$) or workers ($Mean = 4.07, SD = 2.07$). A three-way interaction between gender, type and wage was also detected (Table F; $F[1, 38] = 8.10, p = .007$), as females demonstrated a strong aversion to importing goods from low-wage countries.

Table F. Male and female mean restriction ratings for trade in goods and workers with high- and low-wage countries (NZ sample).

	High Wage			Low Wage	
	Male	Female		Male	Female
Goods	3.92	4.49	Goods	4.51	5.85
Workers	4.19	4.60	Workers	4.18	4.35

Note: Restriction scores range from 1 (allow trade with no restrictions) to 9 (allow no trade at all).

On the benefit to own country scale, a four-way interaction was found between gender, type, availability, and wage ($F[1, 38] = 5.91, p = .020$).

On the benefit to other country scale, gender was found to interact independently with type ($F[1, 38] = 5.29, p = .027$), and three-way with type and wage ($F[1, 38] = 4.38, p = .043$).

Appendix F: Excluded Independent Sample Analyses – Experiment Two, US Sample

US Sample: Repeated Measures ANOVA

Over all 16 scenarios in the questionnaire, the mean restriction rating was 4.50 ($SD = 2.09$), the mean perceived benefit to respondents' own country scale was 4.15 ($SD = 2.23$), and the mean perceived benefit to the other country scale was 4.15 ($SD = 2.11$).

The key results for the US sample were tested on each dependent variable in a 2 X 2 X 2 X 2 within-subjects repeated measures analyses of variance.

Restriction

On the restriction scale, respondents favoured greater restriction on trade when the type of good or worker was not currently available in the US ($F[1, 42] = 15.4, p < .001$). Also on this scale, a two-way interaction was found between wage and reciprocity ($F[1, 42] = 10.8, p = .002$), as reciprocated trade with a high-wage country was preferred ($Mean = 4.19, SD = 1.98$) to reciprocated trade with a low-wage country ($Mean = 4.67, SD = 2.09$) and unreciprocated trade with either country ($Mean [both] = 4.58, SDs = 2.12, 2.13$). Finally, a weak four-way interaction between all categorical variables was detected ($F[1, 42] = 5.82, p = .020$).

Benefit to Own Country

On the benefit to own country measure, respondents perceived greater benefit to the US when the proposed imports were not currently available ($F[1, 42] = 16.4, p < .001$), and when the trade was with a nation that pays its workers high wages ($F[1, 42] = 4.16, p = .048$). A two-way interaction between type and reciprocity was detected (Table G; $F[1, 42] = 6.88, p = .012$). When the scenario proposed imported goods, respondents favoured greater benefit

to the US when the other country reciprocated such trade ($Mean = 3.87$, $SD = 2.04$) compared to when the other country did not reciprocate ($Mean = 4.34$, $SD = 2.36$). However, when the scenario proposed immigrant workers, respondents perceived little difference in benefit to the US between reciprocation ($Mean = 4.26$, $SD = 2.16$) and no reciprocation ($Mean = 4.15$, $SD = 2.33$). Lastly, there was a three-way interaction between type, reciprocity, and wage ($F[1, 42] = 5.94$, $p = .019$).

Table G. US sample mean benefit to own country ratings for imported goods and worker immigration when reciprocated and not reciprocated.

	Goods	Workers
Reciprocated	3.87	4.26
Not Reciprocated	4.34	4.15

Note: Benefit scores range from 1 (certain benefit) to 9 (no benefit at all).

Benefit to Other Country

On the benefit to other country measure, respondents perceived greater benefit to the other country when the US was receiving their goods, rather than workers ($F[1, 42] = 5.43$, $p = .025$). A three-way interaction was also detected between type, reciprocity, and wage ($F[1, 42] = 6.47$, $p = .015$).

Correlations

Strong correlations were found between restriction scores for all scales (Table H). Further, restriction scores for scenarios proposing goods and workers were found to correlate

very strongly ($r = .89, p < .001$) when each respondent's restrictions score were averaged across their eight responses for each type.

Table H. Correlations between the three dependent measures, averaged over all 16 of each respondent's responses on that scale.

	1.	2.	3.
4. Restriction		.77***	.61***
5. Own Country	.77***		.73***
6. Other Country	.61***	.73***	

Notes: 1. All scales ordered so that a positive direction indicates an anti-trade (restriction) attitude; 2. All correlations significant at ***.001 level.

Split-Plot Analyses

Studentship

A split-plot ANOVA was run on the restriction measure with current student (yes or no) added as the fifth independent variable. Non-students consistently favoured greater restriction ($Mean = 5.06, SD = 1.93$) on trade than students ($Mean = 3.57, SD = 2.01$; $F[1, 15] = 7.88, p = .013$). Students were also less affected by whether the good or worker was already available in the US ($F[1, 15] = 4.80, p = .045$), favouring little restriction regardless of whether the good/worker was currently available ($Mean = 3.66, SD = 2.02$) or unavailable ($Mean = 3.48, SD = 2.01$); non-students favoured greater restriction when the good/worker was unavailable ($Mean = 4.35, SD = 1.82$), and much greater restriction when the good/worker was available ($Mean = 5.76, SD = 1.78$).

Gender

Gender was added as the fifth independent variable for repeated measures ANOVAs on each dependent measure (Note: one participant in the US sample that identified as neither male nor female was excluded from this analysis). Gender was found to have no main effect on all three measures ($p > .05$). Gender was found to interact with reciprocity on the restriction ($F[1, 13] = 6.53, p = .024$) and benefit to own country ($F[1, 13] = 15.0, p = .002$) scales. As with the NZ sample, a three-way interaction was detected between gender, type, and wage on the restriction scale (Table I; $F[1, 13] = 5.15, p = .041$), with females again demonstrating an aversion to importing goods from low-wage countries.

Table I. Male and female mean restriction ratings for trade in goods and workers with high- and low-wage countries (US sample).

	High Wage			Low Wage	
	Male	Female		Male	Female
Goods	4.22	4.45	Goods	4.41	5.14
Workers	4.31	4.88	Workers	4.55	4.86

Note: Restriction scores range from 1 (allow trade with no restrictions) to 9 (allow no trade at all).